Occidental Medical Times.

Vol. XI. SEPTEMBER, 1897. No. 9.

SOME CONSIDERATIONS ON ARTIFICIAL ANESTHESIA.

By W. H. Wentworth, M.D., Sacramento, Cal.

Read before the Sacramento Society for Medical Improvement.

The estimate of the most appropriate means for the production of artificial anesthesia can perhaps best be reached by an inquiry into the various dangers involved and the various ends to be sought. The latter are covered by the old maxim of Asclepiades, *cito*, *tute et jucunde*. The former or avenues of danger are, in a general way: (1) The length of time necessary to keep the patient under the influence of the anesthetic. (2) The amount of anesthetic necessary to be administered. (3) The quality of anesthetic. (4) The idiosyncrasy of the patient; under which are to be considered his vitality, his excitability, his subjection to heart, lung, or kidney complications, or to chronic alcoholism. These will be considered *seriatim*.

I believe it is primarily to be considered in the act of administering an anesthetic that the less the total amount of drug administered to the patient, the better it will be for his welfare during the operation, as well as subsequently. If this be admitted, it must follow that the more quickly a definite amount of the drug is placed in the patient's circulation the better; for it must be remembered that it is not so much the exposing of the patient to more or less concentrated vapors of chloroform or ether for any particular time that essentially produces the given result, as it is the bringing into the patient of a definite amount of the given anesthetics. In other words, chloroform and ether have their dosage like other drugs. If the anesthetizer administers them slowly, or fearfully, the patient reaches the same result over a long and painful path that he might have reached much more easily in a few moments.

A single breath taken into the lungs does not immediately reach the finer bronchioles, but whatever vapor this breath brings into the lungs is diffused, during the passage of several succeeding breaths, into these bronchioles and forms its factor in the so-called residual air of respiration. Hence, if an anesthetic is respired slowly and in great dilution for several minutes, the residual air becomes thoroughly permeated with the drug, and the lungs cannot be emptied of it for several minutes. If, however, a large amount of anesthetic is taken into the lungs almost at once, it can be replaced by oxygen within a very few seconds, not yet having penetrated to the finer lung passages. Rapid administration is, therefore, contrary to what might be, and often is assumed, safer than the slower method. In the next place, the total of the anesthetic so administered is much less than in a slow administration with thorough saturation of the lung contents, Further, the time of administration is materially diminished, for the operator need not wait so long.

That these results are obtainable we have all seen many times illustrated in the case of small children, with whom the anesthetic is necessarily crowded from the start, and with whom two or three minutes ordinarily suffice with either ether or chloroform, to produce profound narcosis; and with those individuals who, from one reason or another, approach anesthesia without fear and with a desire to become anesthetized as rapidly as possible. I remember Dr. Cushing's having told me that a very few rapid, full inspirations of ether, as concentrated as possible, have repeatedly sufficed to put him completely under its influence. The happy results of anesthetization in both classes of cases cited are, I believe, so marked that there is justification for the conclusion drawn from them.

The testimony of Dr. Lewis A. Sayre is directly in point here. He says: "I have employed no other method for more than 20 years; have used it in this manner in some thousands of cases without the least appearance of danger, and can, therefore, speak with confidence as to its safety. My plan is simply to anesthetize the patient with the smallest amount of chloroform possible; and, as oxygen is the antidote to the anesthetic, I exclude all air that is not impregnated with the anesthetic. In this manner a very few inspirations will produce immediate anesthesia without the muscular struggling which always follows when pure air is admitted with the chloroform. I always measure my dose with the same care as if I were administering arsenic, strychnine, corrosive sublimate, or any other potent agent; and then I know what I am doing. If, by accident, there should be some peculiarity about the patient, making him unduly susceptible, a few artificial respirations would soon remove the influence of the few drops which had been inhaled, and thus all danger can be avoided. Five, ten, or twenty drops of chloroform administered in this manner are all that is requisite to produce immediate and profound anesthesia."

It should be mentioned here that some such precaution as that noted by Dr. Parkinson, in a paper previously read before this Society, should be taken that the concentrated ether vapor be not too cold as it passes into the lungs. To avoid this is, partially at least, to obviate the bronchial irritation consequent to the customary inhalation of ether.

Coming now to the quality of drug to be used, it is hardly necessary to urge that the best obtainable is the only one worth considering. I speak of it only to make reference to a preparation of chloroform with which I became acquainted in practice in a community deriving its medical notions almost entirely from Europe, and employing chloroform to the practical exclusion of ether. This is the chloroform of Adrian, of Paris. It is put up in 30 and 60 c.c., sealed tubes, and it impressed me as being of decidedly better quality than that to which I had been accustomed in America. It responds to tests for purity in a way I have not found ours to do. The leading surgeon of the community, an Englishman and previous pupil of Lister, told me he had used it exclusively during the six years of his practice there, with no untoward effects. He was, perhaps naturally, a little inclined to make merry over our American habit of patience with the bronchitis, nephritis, and unpleasant coincident symptoms of our home-product anesthetization.

The idiosyncrasy of the patient has next to be considered. Here it is to be noted that rapid anesthetization gives a far better chance for resuscitation in case unfavorable symptoms supervene. In cases of exhausted vitality, heart or lung complications, or alcoholism, the means must be adapted to the special case. Particular cardiac pulmonary or renal disease will call for the selection of one or the other of the two common anesthetics. In general, a hypodermic injection of the customary drugs has a satisfactory result. This, I believe, is competent to remove to a considerable degree, the dangerous state of excitement into which alcoholics are so likely to pass during the induction of anesthesia.

In considering the choice of an anesthetic, it is customary to prefer chloroform with children, parturient women, and nephritics, and ether in general cases, and especially in those in which the cardiac or pulmonary function is impaired. This is partly because ether is a cardiac stimulant, and partly because it is not without oxygen, as chloroform is. Furthermore, if resuscitation is demanded, ether vapor is light and readily passes off from the lungs, while chloroform vapor is remarkably heavy and is, therefore, persistent in the lung spaces. The natural tendency with us here is, I believe, to choose ether unless we have special indications to the contrary, basing our choice on the statistical superior safety of the drug. It occurs to me that in the vast number of cases quoted, upon which this judgment is founded, we have probably a very considerable factor arising from special cases which have no proper place in a comparative estimate. Such special cases, I mean, as impure drugs, unskilful administration, and evidently unsuitable cases. To me, the evidence of Sayre's several thousand cases and 20 years' experience, bears more weight than do the conclusions from the widely gathered statistics customarily quoted. I am inclined to doubt that statistics compiled from the experience of authorities in this branch of work to-day, would show such a preponderance of safety in favor of ether.

I shall now proceed, very briefly, to consider the choice of an inhaler. For chloroform, with which we necessarily require a proportion of air, the demands are reasonably satisfied by any device such as those customarily in use, the best example of which is Esmarch's mask. The more elaborate chloroform inhalers are not likely to become generally used because of their mere complexity. With ether, usage is pretty evenly divided between the Allis inhaler or some modification of the Ormsby pattern, and the simple towel-and-paper cone. The Allis inhaler seems a moderately satisfactory instrument. The fact that it uses a large quantity of ether is a consideration of very secondary importance as compared with even the smallest degree of additional security for the patient.

With regard to the Ormsby pattern, anesthetization so produced is of course a mixture of ether narcosis, and carbonic acid poisoning, and is, therefore, in my opinion, objectionable upon theoretical grounds. It stands to reason, I think, that cases can be readily imagined in which we should be loath deliberately to increase the carbonization of the blood, to diminish its vitalizing power, and to increase its fluidity and non-coagulability. What this form of inhaler does do is to produce a very speedy narcosis with a minimum of ether. But the objections urged seem to me to outweigh by much the economy of ether, and its other good results can be produced by proper manipulation of either the Allis inhaler or the simple towel-and-paper cone. It would seem to require very positive evidence that carbonic acid narcosis is not dangerous, to outweigh the theoretical objections to that method. I am inclined to think that the ideal inhaler is one in which each inspiration shall draw fresh air over the ether-charged surface, and each expiration pass directly into the outer air. When such an apparatus, not unduly complicated, is devised, we shall be able to etherize as safely, quickly, and pleasantly as we shall desire.

From what I have said I would summarize as follows: or,

1. Rapid anesthetization is to be preferred to the slower method as being quieter, safer, and more effectual.
2. Previous hypodermic medication is desirable.
3. We may with satisfaction resort to the use of chloroform more often than we do.
4. Inhalers involving carbonic acid narcosis are, at least on theoretical grounds, objectionable.

1009 Seventh street.

NOTES OF TWO CASES OF AORTIC ANEURISM DISCOVERED BY AID OF THE ROENTGEN RAYS.

By Arthur Dudley Prentice, M.D., San Francisco, Cal.

The following cases are presented with a view of demonstrating the true value of the Roentgen rays for diagnostic purposes:

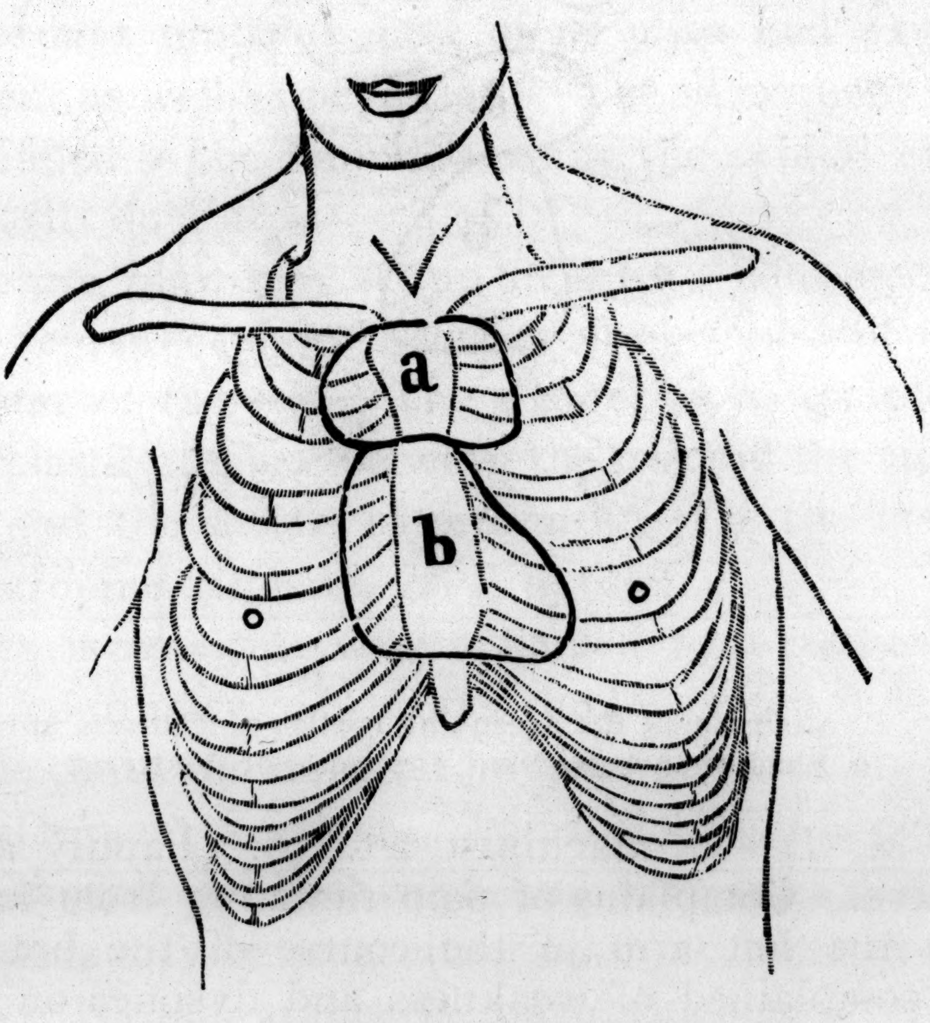

Fig. 1. Aneurism of the Arch of the Aorta.
a. Aneurism. *b.* Shadow of the Heart.

Case I.—M. L——, laborer, æt. 50. Family history negative. Has drank moderately. Patient has had a troublesome cough for some time, which has persisted up to this date. There is also dyspnea on exertion. He suffers from severe radiating pains on the left side of chest, taking their origin from the precordial region. Physical examination of the chest is negative as far as it relates to the symptoms characteristic of an aneurism of the thoracic aorta. I decided to take the patient to Dr. Albert Abrams, of this city, for examination with his modification of the Roentgen ray apparatus. The picture thrown on the fluoroscope, which is schematically reproduced in figure 1, was beautiful, and the gratification was comparable to that which one experiences in having a prolix diagnosis verified by a *post-mortem* examination. The apex of the heart could be seen beating a little below its normal position. By raising the fluoroscope a little higher a large pulsating mass could be plainly seen, extending one inch to the left of the sternum at the first interspace across to the second right costal cartilage. It will be remembered that only the dense structure of the heart muscle and not the aorta can be seen normally. The organized clot, which is found in large circumscribed aneurisms, is dense enough to cast a shadow on the screen.

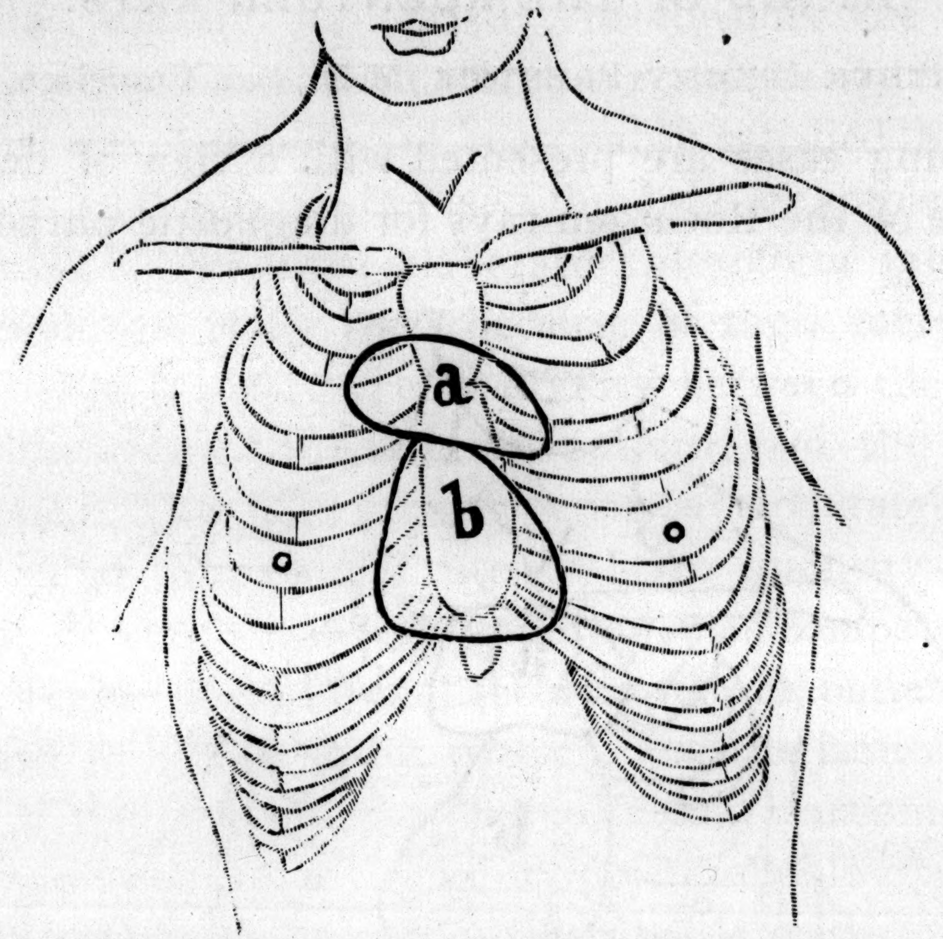

FIG. 2. Aneurism of the Ascending Portion of Thoracic Aorta.
a. Shadow of Aneurism. *b*. Shadow of the Heart.

CASE II.—M. D——, machinist, æt. 56. Family and previous history negative. Complains of pain radiating from left clavicular region down the left arm in the course of the brachial artery. Patient also complained of weakness and dyspnea on the slightest exertion. A pulsation can be noted in second left intercostal space close to the left border of the sternum. Over this region slight dulness is present. This case was also examined by Dr. Abrams, by means of the Roentgen ray apparatus, with the result shown in figure 2. The aneurism in this case could be plainly discerned, but the outlines of the heart were not clear owing to the dislocation of the heart downwards and to the right by the large tumor.

Radioscopy must now be recognized as an invaluable aid in clinical diagnosis.

134 McAllister street.

INJURIES TO THE EYE AND THEIR TREATMENT.

By CLARENCE J. MINER, M.D., Fresno, Cal.

Read before the San Joaquin Valley Medical Society.

Traumatism of the eyeball, for obvious anatomical reasons, is confined, almost exclusively, to its anterior hemisphere. More accurately, perhaps, it should be said that the first point of injury is in this hemisphere, though the wound may extend even to the other. In the latter the injury is usually so severe that the chances for saving the eyeball are *nil*.

Like wounds of other parts of the body, those of the eye may be classified as contused, incised, and penetrating. Though most wounds met in practice partake, more or less, of the characteristics of two or of all of these classes, I think we can most conveniently and profitably study each by itself.

The least severe contusions of the eye need no comment, for in our younger days probably most of us have had experience with them as patient as well as physician. The subsequent inflammation is mostly confined to the conjunctiva and the orbital connective tissue, and is easily subdued.

A more severe blow may set up an iritis. This becomes evident by a greater degree of photophobia, a sluggishness of the pupil and a loss of luster of the iris. The danger to be guarded against is adhesion by plastic exudate between the iris and the anterior capsule of the lens, and the means of preventing it is the instillation of a solution of atropine sulphate, gr. ij to the ℥.

The cornea is rarely severely inflamed by a contusion that does not break its continuity. Nor does the lens often suffer impairment from a simple contusion unless it be dislocated. This last, however, is not an infrequent accident. The dislocation is generally downward, or downward and backward, and through a dilated pupil the edge of the lens may be seen either by direct view or with the ophthalmoscope. Its appearance is too obvious to admit of mistake, especially with the ophthalmoscope, for the lens is seldom dislocated so far back into the vitreous that its edge may not be seen through the pupil. To direct examination the lens is seen as a very dark grayish body bounded by a golden yellow curved line. The crescent of pupil above the lens is intensely black. By the ophthalmoscope the lens appears of a darker shade than the rest of the red reflex, and the line bounding it, which was golden, to direct examination is black.

A dislocated lens, of course, acts as a foreign body. Like any other foreign body, it may be for years in the eyeball without causing much trouble. Usually it causes so great disturbance of vision by the irregular refraction of the light, or by setting up so severe an irido-cyclitis, that its removal is imperative. This is a more severe operation than an ordinary cataract extraction, and offers much less prospect of success. If the vitreous must be deeply invaded the likelihood of success is so small that the operation is hardly justifiable except as a last resort, when destruction of the eye is otherwise certain from irido-cyclitis.

Another result of simple contusion may be rupture of the choroid and sclera, either partial or complete. This does not take place at the point of impact, but at a point one-quarter way around the globe of the eyeball. A moment's thought will show the reason for this. The eyeball is a tough globular bag filled with more or less fluid contents. If an orange—which is like an eye in this regard—be compressed between the table and the hand, its contents bulge out at a point midway between the points of compression, and it is some place in this diameter that the peel first gives way. So it is with an eye when it receives a blow from a body that does not penetrate.

In many cases the rupture is at some point midway between the cornea and the optic nerve. In others the rupture takes place at the upper sclero-corneal margin, because, when an eye is threatened, it instinctively turns upward under the upper lid. It receives the blow at a point below the center of the cornea, so that the rupture, which is most likely to occur about 45° around the globe from that point, takes place at the upper margin of the cornea. The prognosis in these cases is very gloomy, for violence sufficient to cause such a rupture will set up a destructive inflammation of all the eye structures.

Incised wounds of the eyeball are frequently seen, and if made with a tolerably clean instrument are not so severe as one would think, unless the vitreous has been invaded. The indications are, of course, to thoroughly cleanse the wound and to maintain its edges in apposition.

The cleansing can best be effected by thorough irrigation with a a saturated boracic acid solution, or by a solution of bichloride not stronger than 1:5000. Carbolic acid is not well borne by the eye. The lips of the wound may be kept in apposition by simply closing the lids, and keeping them closed with a bandage for five or six days. The eye should be dressed daily—that is, the margins of the lids should be cleansed and a fresh pad applied. The lids should not be opened unless an abundant discharge and much swelling show that things are not going well with the eyeball.

If the iris has entered the wound it must be replaced, if possible, with some smooth, blunt instrument. If it cannot be replaced, the protruding portion must be cut off with scissors. If the capsule of the lens has been opened the lens will become cataractous within a few hours. If the capsule has been very freely opened, the masses of lens matter may swell so rapidly by the imbibition of the aqueous, as to demand immediate evacuation. This, perhaps, may be done through the original wound, but it will probably require enlarging, or a new incision may have to be made. If the wound extends into the sclera, and if the vitreous has been invaded the danger is greatly increased. The vitreous is the best possible culture medium for all bacteria; nevertheless, the treatment is practically the same, save that the greatest precaution must be taken to secure asepsis. No instruments must be introduced into the vitreous if it can possibly be avoided, and if used they must be absolutely sterile.

If a foreign body has been introduced into the anterior chamber, or into the lens, an attempt to remove it should certainly be made, and it will probably be successful. If, however, it is in the vitreous, it is another question. If it can be plainly seen, either from the original wound or through the pupil, an attempt may be made to remove it. On no account should an instrument be introduced into the vitreous to grope blindly after a foreign body; to do so is to insure the loss of the eye.

To sum up the subject briefly:

With a simple contusion and no breach of continuity of the ocular structures, use the ordinary measures to reduce inflammation, and look out for evidences of severe iritis. If this appear, promptly instill a mydriatic.

With a clean-cut incised wound, cleanse the eye and the conjunctival sac with a mild antiseptic solution, and close both lids.

If no profuse discharge and no severe swelling of the lids occur, keep them closed for four or five days.

Do not be too curious as to the condition of the eyeball, but let nature do her good work undisturbed.

If the lens have been wounded and have become cataractous, send the patient to an oculist as soon as the original wound is closed.

If the wound be ragged and lacerated adopt the same measures, except that the eyeball must be cleansed daily; recovery will be more slow.

If a foreign body be lodged in the anterior chamber, remove it. If in the vitreous within easy reach, remove it. But do not grope through the vitreous in search of a foreign body that you *think* may be there.

Garibaldi Block.

NEURASTHENIA.

By **Myra Knox**, M.D., Oakland, Cal.

Read before the Alameda County Medical Society.

Neurasthenia cannot be called a disease; it is a condition.

Dercum says that "Neurasthenia, in its simplest form, is a condition in which there are more or less marked persistent diminution of nervous energy, together with an increased reaction, mental and physical, to external impressions."

Wood says: "General debility used to be inscribed on the records of diagnosis, but in most cases represented the diagnostic skill, and not the body of the patient. To-day neurasthenia holds much the same place."

Hughes says: "Neurasthenia is a condition in which the nervous system appears to suffer in its nutrition, normal stability and power; involving the viscera and nerves only in a functional and secondary manner. It is psychically characterized by timidity of conduct, bordering on but not becoming delirium. It differs from hysteria by being continuous, and not paroxysmal."

This condition was first described by Van Dusen, an American physician, in 1877, followed by Beard, in 1878. It is considered a nineteenth century evolution, and is said to be more common among men than women. This, I think, is due to the habit of calling this condition neurasthenia among men, and hysteria among women.

A neurasthenic woman may become hysterical, but an hysterical woman need not be neurasthenic. There is a great difference between the two. A perfectly healthy person may lose self-control and become hysterical, but in neurasthenia there is a continuous state of loss of nervous power.

This condition is usually seen in either mentally or physically over-worked people. Some of the most hopeless cases are found among professional men, from continuous mental strain. Equally bad cases are found among women who have borne children too fast, and who are worn out with the care of them.

Many of these cases go on to insanity. I had a letter recently from a neurasthenic patient, whom I had sent to a quiet place on the sea shore, hoping the change would do her good. The letter is very characteristic of this condition. She says: "I stayed five days, and returned more tired than when I went. I had nothing to do but lie in the warm sand all day; but the ocean tired me; it was so restless, so noisy, and there was so much of it, and to think that it would keep right on forever, overwhelmed me; I could not stand it."

To those who are familiar with the condition called neurasthenia, the picture is complete. Unlike hysteria it calls out our warmest sympathy, and a desire to help. These cases may need medicine, but they do need cheerful surroundings, and the moral support of the physician.

We cannot deny that insanity and nervous disorders are increasing, especially on this coast. There must be a cause for it in our habits of life. Have we, as a people, less power of resistance than those of other countries? Is the load placed upon us by modern improvements, and the claims of society, greater than we can bear? We are accused of what is commonly called "burning the candle at both ends," a habit dangerous to ourselves, and a bad legacy to our children. Do we allow our work or study to interfere with needed sleep? Do we work till we tire easily on slight exertion? Do we persist in working with a confused brain? Let us remember that these are the outposts to warn us of the approach of the enemy—neurasthenia or insanity.

Brain and nerve cells are limited in their possibility for continued action, differing, of course, in different individuals, but always dependent on proper nourishment, and time for recuperation after continued use. The so-called neuron theory of Hodge gives us needed light in this connection, and his experiments have been especially valuable. Hodge studied the nerve cells of swallows, pigeons, and bees, before and after fatigue, and in all cases he discovered changes. After rest the cells were large, plump, and well defined, and the neuclei were well shown. After a day's flight they were found small, the nuclei were indistinct, the protoplasm granular and shrunken, and the cell processes striated. Surely this proves much to us of the pathological condition of neurasthenia, since we know that the marked characteristics of this condition are nervous weakness, and nervous irritability.

Dercum suggests that in chronic cases we may have toxic effects in the blood from the excessive waste of nerve tissue. Mosso has demonstrated that in fatigue there is an altered condition of the blood. He injected the blood of a fatigued animal into one at rest, and obtained the characteristic signs of fatigue.

A large proportion of our business and professional people begin to show signs of breaking health in middle life. Not so much from hard or absorbing work, as from a lack of rest and change. There would be less need of long vacations, if busy people rested one day in seven, but, as a rule, surgeons do their hardest work on Sunday.

If the experiments of Hodge, Dercum, and Mosso be accepted as true, then it follows that, after a certain period of work without rest, the nerve cells will continue to show change, will be small and shrunken, and this pathological change will go on till there is a disintegration of nerve tissue, and the whole economy will suffer from a toxic condition of the blood, causing not only physical, but mental decadence. There will follow a loss of appetite, a lack of concentration, and a pessimistic view of life.

Pessimism takes root only in a disordered digestion. If you want to find out if a man is strictly orthodox in his religious beliefs, wash out his stomach. If the contents are undigested you may be assured that he has fixed opinions about the next world, and that he believes in a real hot time for those not of his own faith. It is the pastor with an ungovernable liver who addresses his people as "my dying congregation."

The world is kept going not by the purely intellectual, but by the people who know how to dine, and who breathe below the belt. It is said that "conscience makes cowards of us all;" but the conscience that would give the dyspeptic a bad half hour, would not "phaze" the one with a normal supply of red blood corpuscles and good nerve power.

The ability to generate nervous energy differs in different people. Some are born with only force enough to live, others work and study continuously, and yet have reserve force. But you cannot eat your cake and have it, and in time the penalty is paid.

The ever increasing demands of our public schools are adding to our list of neurasthenics. Many of our high school girls are overworked, and underfed. They are too busy to help with housework, and too tired to practise in the gymnasium, The result is they have flabby muscles, are irritable, cry easily, complain of pain in the left side, as that side has less power of resistance, through lack of development.

Every year these weak ones drop out before the course is completed. Unfortunately they sometimes marry; why, I cannot say. They are not strong enough to care for a home, and their best energies are spent in trying to escape the responsibilities of a family. If, by a sad chance, they have children, what dragged down, forlorn looking women they become. Here you have all the conditions of the neurasthenic. And the child is most to be pitied.

We all talk, more or less, of improving the world by having fewer children. But are the fewer better? In some cases there are valid reasons for limiting the number of the family, but it cannot be put on the grounds of improvement in manners or in morals. Where there are six or eight children in a family, the first may be spoiled by too much attention, but the rest have a chance of growing into sturdy, self-reliant men and women.

The trouble with the neurasthenic high school girl dates away back. As a little child, too much is done for her. She should be allowed to grow into a good healthy animal. Instead, she is talked to, taught, praised, and the emotional side of her nature developed, which is a great misfortune to herself and to others.

Among the very first of causes, in neurasthenia, I would put lack of home training and discipline. We think too much of the children's books, and too little of their bodies and their morals. We regard them with pride as ours, forgetting that they are to be the citizens and lawmakers of the State.

Boys and girls brought up in cities should have daily tasks that are hard enough to increase the circulation, and promote the healthy development of muscle and bone, and so increase the growth of cells in the motor areas of the brain.

If it be true that every time a muscular movement is made, less resistance is offered by the nerves controlling that particular motion, then it is equally true that every time a child resists what he knows to be right, and is allowed to do wrong, it becomes easier, he loses self-control, and more and more the moral tone is lowered, and the power of resistance to evil is lessened.

In view of the lack of home training in the average child, is it any wonder that hysteria, neurasthenia, and insanity are on the increase? Idleness, discontent, and lack of purpose in life, are the causes of much domestic unhappiness.

In 1894, out of 32 young men, in New York city, who were examined for West Point cadetships, only 9 were accepted as physically sound. This disability resulted, no doubt, from excesses, the fruits of idleness and ignorance, for which the parents were wholly responsible, rather than from inherent depravity.

The salvation of city bred children depends on enforced attendance at the gymnasium, and the manual training schools. They are, however, poor substitutes for the healthy conditions that give us "the barefoot boy with cheek of tan."

Neurasthenia is very apt to follow an attack of *la grippe*. This disease usually leaves in its train profound depression, great nerve prostration, and sometimes melancholia.

Loss of blood, great mental strain, shock, overwork, poor food, and bad air, are also causes of neurasthenia.

The children of overworked mothers, those born of tuberculous, drunken, or very old parents, have feeble recuperative powers, and generally become neurasthenic.

The symptoms are too numerous to mention, and the same patient develops new ones every day. Two common characteristics are great depression, and apprehension. Such patients have no reserve force, lose courage, and are prone to think the doctor does not understand the gravity of the case. Beard speaks of a deficient sense of thirst in these cases. I have found this to be almost universal.

It is a condition that certainly is discouraging to both doctor and patient, for in most cases, after seeming recovery, there will be a sharp relapse. It calls for qualities, in the physician, not acquired in college, nor gleaned from books on medicine. And it needs these rare qualities to hold patients honestly, and to tide them over their relapses.

The treatment is, of course, as varied as the symptoms. First, bring about an altered condition of the secretions. Relieve constipation, by diet if possible, but relieve it. Insist on the patient drinking four pints of fluid per day. If it be true that excessive waste of nerve tissue causes a toxic condition of the blood, the water is needed to wash it out.

Beard says: "In neurasthenia there is no new substance, no entity, no poison introduced into the system; there is simply bad nutrition, and we may suppose, instability and abnormal movements of the ultimate particles of the living matter. Anything that alters the nutrition deflects these motions, giving them a different direction from what they already have; may exercise a relieving, if not a curative effect. The old fashioned term, alterative, was really scientific."

Nearly all neuresthenics are anemic; so iron, arsenic, and strychnine are indicated. Hydrolein or pure cod liver oil are as good for these cases, as for consumptives, if they can digest them. Alcohol, opium, and chloral are dangerous remedies, and ought not to be prescribed. For the indigestion I like hydrastis.

Beard gives large doses of the bromides, well diluted, for a few days, to give the system rest. He calls ergot a major remedy, and gives it in drachm doses, for various kinds of headaches. Dercum gives nitrate of silver ¼ gr. and hyoscyamus ¼ gr. half an hour before eating, for indigestion, complicated with catarrh. Cannabis indica is recommended by all authorities, and the citrate of caffein is recommended for headache, backache, and general depression.

Feed such patients suitably and well, for most women are underderfed. See that they wear flannels, and that they bathe, and use a flesh brush, or have it used. If they are sent to the seashore, prescribe the amount of sea bathing and exercise, and if to the mountains, the degree of exercise, also. Many people walk and exercise so fiercely, they wear themselves out. My neurasthenic patients have had much pleasure and benefit from riding a wheel. They can exercise without fatigue, and have change of scene. It is needless to say, that all diseased conditions of the generative organs must be properly treated.

The rest-cure, so admirably planned and carried out by Weir Mitchell, with isolation, massage, proper feeding, and electricity, is the ideal way to treat many of these cases. On the other hand, for the over indulged, hard work is a panacea.

Do what we may for the patient, the personality of the doctor counts for more than his medicine. If one is to treat these cases to a successful issue, he must have faith in himself, and in his measures. If he has doubts, he must leave them outside the sick room. When the doctor begins to doubt, the patient doubts also, and he who hesitates is lost, as truly in dealing with the sick, as in love or war.

The prognosis depends on the absence of complications. Then the outlook is hopeful. Extreme youth or old age precludes a cheerful prognosis, on account of the feeble recuperative powers. With the means to insure intelligent care, change of scene, or the rest-cure, the case is hopeful.

Withal, the patient must have cheerful surroundings, and be served only by cheerful people. The main thing is to make him forget himself.

958 Fourteenth street.

MALARIAL FEVER IN THE SAN JOAQUIN VALLEY AND ITS TREATMENT.

By D. H. Trowbridge, M.D.

Read before the San Joaquin Valley Medical Society.

For convenience of treatment, malarial diseases are divided into three great classes: (1) Intermittent fever. (2) Remittent or so-called billious fever. (3) Pernicious or so-called congestive type. The last class, I am glad to say, is almost unknown in this valley and climate.

The first or intermittent fever type is by far the most common and the most easily managed. We find it in several forms, the quotidian, tertian, and quartan. The quotidian and tertian are most common. In my own experience, and I presume in the experience of every physician, very little if any trouble is experienced in controlling this form of malaria. My treatment consists of: First, a full dose of 5 to 10 grains of the mild chloride of mercury, combined with 5 to 10 grains of ext. colocynth co., 3 or 4 grains of sodium bicarbonate, and 10 to 15 grains of quinine; mix and make 3 to 5 pills or capsules, and give one every one or two hours on the evening before the chill day. I then give from 20 to 30 grains of quinine sulphate divided into 3 or 4 doses, from one to two hours apart, so timed as to bring the last dose about three or four hours before the chill time. This gives the patient time to become fully cinchonized by the advent of the chill or fever.

If the time is short before the chill I usually give this amount at one dose and in solution. With this treatment my patients rarely have another chill. This amount of quinine may not be necessary in every case, some cases requiring only a few grains; but to be on the safe side I usually give full doses. I continue the quinine three days to prevent a return of the paroxysm, and then put the patient on a tonic, as follows, giving one pill three times a day:

℞ Ferri. Sulph.	gr. ii
Quinin. Sulph.	gr. ii
Acid. Arsen.	gr. $\frac{1}{20}$
Strych Sulph.	gr. $\frac{1}{20}$—M.
ft. pil.	

The sulphate of iron is best for the malarial anemia, the arsenic is a direct antagonist or poison to the malarial germ, the quinine prevents the return of the paroxysm, and with the strychnine is an excellent tonic, mild chologogue and stomachic. I am a firm believer in the initial dose of mercury and usually prefer calomel. It does more than merely unload the bowels.

In children I pursue much the same plan of treatment, except that I give the quinine in aromatic syrup of yerba santa or in velatine, and give it every two or three hours throughout the twenty-four. A child one year old will stand 1 grain every two or three hours, and a child two years old will stand three times that amount. I seldom meet with a case of malaria in children which will not yield in a few days to this treatment.

Some persons cannot take quinine on account of its causing a violent rash. To these I give oil of eucalyptus, in capsules, in doses of 5 to 10 m., every three hours. While I do not consider this as reliable an antiperiodic as quinine, it sometimes acts very nicely.

I know of one instance of persistent chills in which Edison's aseptolin was used with success after many other remedies had failed. I mention this merely to hear if any of the members present have used it or heard of its use in malaria.

It is in the second or remittent fever class that I find the most trouble in treating malaria. In the great majority of cases I have had no trouble in breaking up the fever in a few days, usually two or three, but in some I find it impossible to bring about a normal temperature inside of two to five weeks.

In this connection I have had a rather peculiar experience, which I desire to mention. During the summer and fall of 1895, I had but one case of remittent fever which did not yield to treatment in a few days, and this was complicated with gonorrhea, while during the past summer I have had 25 or 30 cases which have run a course of ten days to five weeks, the average being about twenty-one days. Now I do not think there was any enteric complication except, possibly, in one or two cases, and in these it was very slight, yet I used the same treatment during both seasons, but with very different results.

My treatment of these cases is much the same as in intermittent fever, except I usually give slightly larger doses of quinine; beginning treatment with a mercurial followed by a dose of Epsom salts, if necessary to unload the bowels. I then give from 25 to 45 grains of quinine, in three or four doses, usually between the hours of 10 P. M. and 4 A. M. The great majority of cases yield to this treatment in from two to four days. In this form of fever I always insist on a strict liquid diet, of which milk or meat broths form the most important part.

The most important part of the treatment is the time of giving the quinine. I think it should always be given in the early morning during the remission. Should the fever still persist after a few days' treatment, I put the patient on Fowler's solution in full doses, 6 to 10 minims every four hours, and then on the sixth and seventh days I again give quinine, sometimes with the result of breaking the fever on the seventh or fourteenth day. It rarely runs over twenty-one days when properly treated, although I have seen cases in the Charity Hospital, at New Orleans, which continued for fifty-six to sixty-three days.

I have found, sometimes, a remittent fever resembling malaria, which yielded very readily to intestinal disinfectants, so that I make it a rule when the fever still persists after a few days' treatment with quinine, to put the patient on a mixture of bismuth subnitrate, lactopeptine, sodium sulphocarbolate, and, sometimes, salol. In several cases I have had the satisfaction of seeing the temperature drop to normal in 24 hours, when it seemed the patient was in for two or three weeks of fever. I find this will not answer in every case. I presume when the fever is of a gastric character, it is apt to act better.

There are, of course, many complications of this form of fever, but there is only one which I wish to mention, because it has been the cause of much annoyance to me, and that is persistent vomiting. This taxes one's skill and patience very much. I depend upon a large hypodermic of morphine, $\frac{1}{4}$ to $\frac{1}{2}$ grain, and $\frac{1}{50}$ to $\frac{1}{75}$ grain of atropine, or chloral hydrate 15 grains, per rectum. These usually quiet the stomach for a few hours, and in the meantime I give large doses of a concentrated solution of Epsom salts hourly. This usually moves the bowels several times and the vomiting ceases. Some cases do not progress so favorably; in these I have tried small doses of calomel, cocaine, lactopeptine, mustard plasters over the epigastrium, etc., but usually no permanent relief is given until free purgation is established. Sometimes it is hard to differentiate between the vomiting, when there is little fever, from that of pregnancy, and I can recall being twice deceived in this manner.

The worst form of malaria—the congestive type—is rare in this valley, and only occurs in masked cases. I have seen one case, in consultation with Dr. Wilson, of Fowler, which we thought to be the comatose type of congestive malaria, as no other diagnosis could be made out. No examination of the blood was made.

DEPARTMENTS.

OBSTETRICS, GYNECOLOGY AND PEDIATRICS.

By Wallace A. Briggs, M.D., Sacramento, Cal., and
Wm. Fitch Cheney, B.A., M.D., Adjunct to the Chair of Obstetrics and Diseases of Women and Children, Cooper Medical College, San Francisco, Cal.

Condensed Milk for Infant Feeding.—An analysis of human milk shows that it contains from 3½ to 4 per cent. of fats, 2 per cent. of proteids, and 7 per cent. of sugar. Analysis of a condensed milk mixture, when diluted for use in the proportion of one part in six of water, gives only 1 per cent. of fat, 1.2 per cent. of proteids, and 8 per cent. of sugar—mostly cane sugar. Usually, however, the mixture is even more dilute than this, and the proportions are even more deficient. The greatest lack is the fat, and on such diet infants generally develop rachitis and malnutrition of varying degrees. They fall an easy prey to the infectious diseases during the entire year, to broncho-pneumonia in winter and the gastro-intestinal diseases in summer. Some infants fed exclusively on condensed milk do seem to thrive; but such isolated instances are to be explained by the fact that there are a few infants whose adaptation to abnormal conditions is so great that they cannot be injured by ordinary improper feeding.—Charles G. Kerley, in *Medical News*, June 5, 1897.

Strangulated Hernia in Infants.—Dr. Charles N. Dowd reports the case of an infant four months old with strangulated inguinal hernia. Strangulation had existed for six hours and efforts to reduce the hernia by taxis under ether had failed. Immediate operation by Bassini's method was performed, and the baby recovered. Dowd reviews the reported cases of a similar nature, and reaches the following conclusions on the subject: (1) Infants less than a year in age endure operations for strangulated hernia remarkably well. The statistics of the cases published give a mortality for them which differs little from that for adults. (2) The histories of reported cases indicate that delay, while the strangulation existed, has been the chief source of danger. (3) When strangulation has occurred, the following procedures are recommended: (*a*) Elevation of the legs with the infant in a warm bath, accompanied by a very gentle pressure upon the hernial sac. (*b*) Very gentle taxis under anesthesia, which, if unsuccessful, should be followed immediately by operation. (4) If strangulation has existed long, taxis is more dangerous than operation. (5) The records indicate a mortality of less than 10 per cent. when the operation is promptly done.—*Archives of Pediatrics*, May, 1897.

Pyemia in Infants.—DR. JOHN C. DACOSTA reports the case of an infant, two months old, who was taken ill with a swelling of the right leg, foot, and thigh, resembling cellulitis. Next day the left elbow became inflamed and swollen, and the left forearm and hand. On the third day a swelling appeared on the head over the left parietal bone, and on the fourth day abdominal distension with tympany was observed. The infant died soon afterward and autopsy showed that the condition was one of pyemia, with pus in all the swellings that had appeared. The mystery was as to the manner of infection, which, in this case, could not be determined. Dr. DaCosta, reviewing the modern opinions of such a condition, says that all cases of septic infection in infancy, whatever the clinical manifestations, are due to the entrance into the body of pyogenic microörganisms, usually the streptococcus pyogenes. In a large number of instances, the umbilicus is the door to the infection. But any abrasion of the skin, on any part of the body, however trifling it may appear, may prove the starting point for fatal pyemia. Other routes for infection are the ear, the intestinal tract, and the mucous membrane of the upper respiratory tract.—*American Jonrnal of Obstetrics*, June, 1897.

Abscess of the Brain in Infancy.—At the last meeting of the American Pediatric Society, DR. L. EMMET HOLT reported 4 cases observed of abscess of the brain in infants. The first was the youngest case on record—only six weeks; the baby was well until four days before death, when swelling of the left thigh began; disease of the brain was not suspected, but autopsy revealed an abscess involving the parietal lobe and containing two ounces of pus: infection probably took place through the ear, from punctures for ear-rings, for where the ears had been pierced, strings were found covered with dirty fluid encrusted with pus; there was general streptococcus infection, hence the swelling of the thigh. The second case was three months old, and the symptoms were acute, lasting only three days before death; it was regarded as a case of meningitis during life, but autopsy revealed an extensive abscess of the brain, filling both lateral ventricles and the right parietal lobe; infection in this case was through the ear, and the germ was the bacillus coli commune. The third case was three months old, and traced its origin to a fall from bed, followed by bleeding from the ear, seven weeks before death; on autopsy, an abscess was found in the brain, the size of a hazel nut. The fourth case was nine months old, and had an abscess of the cerebellum, involving the whole of the right lateral lobe, and containing two ounces of thick green pus; the symptoms were internal strabismus, dilatation of pupils with loss of response to light, increase in knee-jerk; no paralysis, no stupor, a condition of irritability, no rise of temperature, occasional attacks of vomiting, but no constipation or retraction of abdomen; the manner of infection was not determined, although the infant was under observation for eight weeks before death.—*Pediatrics*, June 1, 1897.

SURGERY AND ANATOMY.

By T. W. HUNTINGTON, B.A., M.D., Surgeon Southern Pacific Company's Hospital, Sacramento, Cal., and
GEO. B. SOMERS, M.D., San Francisco, Cal.

A New Point in the Anatomy of the Mouth.—DR. B. VON DZIERZAWSKI, of the Warsaw Dental School, in an interesting article on the latent frenula of the lips, says that if we seize the lips in the vicinity of the angle of the mouth, and draw them outward and a little backward, we may readily perceive in many persons, at the points grasped, folds of mucous membrane stretching from the lips to the gums. He calls these folds the frenula labiorum lateralia. The commonest type of these frenula of the upper lip, found in 39 of the 67 persons examined, is that of a rather firm fold standing out to a distance of from 3 to 5 millimeters and meeting the gum a little in front of the middle of the first molar tooth. The author declares that these frenula are as constant as the frenulum mediale inferioris and as typical.—*New York Medical Journal*, May 1, 1897.

A Modified Murphy Button.—DR. JOHN S. MILLER, of Philadelphia, reports an improvement on the Murphy button, where all of the metal except the pressure-spring and the central ratchet cylinder, are replaced by decalsified bone. The buttons were made by C. Lentz & Son, of Philadelphia.—*Medical and Surgical Reporter*, May 22, 1897.

Intestinal Anastomosis by a New Pattern of Decalsified Bone Ring.—DR. CHARLES B. BALL, of Dublin, has made a decalsified ivory or bone ring, which differs in several points from those already in use. The center of each is perforated to allow of the passage of intestinal contents, the upper and lower ends are smoothly rounded off, while round the circumference a deep groove is turned, wide enough to allow involution of the cut edges of the intestine, while keeping the peritoneal surfaces in tolerable close contact; a considerable undercutting of this groove provides accommodation for any surplus of involuted intestine. The chief feature in the application of this ring is a continuous lacing suture, connecting both portions of intestine, which is passed loosely through the entire circumference of the divided ends of bowel before the ring is placed in position. The suture is passed through all the coats of the bowel about one-eighth of an inch from the cut edge. Commencing with the piece of gut to the surgeon's left hand, the needle is passed through from peritoneum to mucous coat, leaving the free end of the suture hanging from the outside of the bowel. The needle is then entered at the mucous surface of the piece of intestine to the surgeon's right hand; in this way we continue round the entire circumference, always entering the needle at the outside of the left hand piece, and the inside of the right hand piece. When the circuit is complete, the second free end should protrude from the peritoneal aspect on the right hand side opposite the first free end on the left hand side. If now a couple of the loops are gently separated, the ring can be easily slipped into position, and then by gently pulling the suture loop by loop, as you would the lace of a boot, it is gradually tightened into the groove of the ring, at the same time drawing in and involuting the cut edges of the intestine, and bringing their peritoneal surfaces into contact. When all is nicely adjusted, the two ends of the suture are firmly tied. It is desirable now to pass a second fine continuous suture round the outside through peritoneum alone, where the two surfaces of this membrane are in apposition.—*British Medical Journal*, April 24, 1897.

Intestinal Anastomosis.—DR. J. W. HARTIGAN describes the following new method: A pair of sharp scissors is made to divide the entire thickness of the walls of the upper and lower ends of the divided gut in a longitudinal direction, at a point opposite the attachment of the mesentery, for a variable distance, a third to a half the circumference of the tube at the divided part. Instead of being the open ends of empty tubes, they are flat processes, presenting very much the appearance of coat sleeves ripped up the seams for a variable distance and turned out flat. Four sutures are next inserted, two in the upper flap and two in the lower flap—that is, one in each corner of each flap. These are held by assistants, and when traction is made on them the flaps are stretched out flat at the cut ends. The mesentery, which has been excised, in case of excision of part of the gut, is united by the interrupted suture, and is not dissected back at all from the attachment to the intestine. It is plain from this description that the mucous surfaces now look up—face the operator—and the peritoneal surfaces look down. Interrupted sutures are now passed, entering the mucous surface, say of the upper flaps, passing through all the coats, emerging a fourth or an eighth of an inch from the edge of the peritoneal surface of the same flap, passing then to the peritoneal surface of the lower flap, entering this surface a fourth to an eighth of an inch from the cut edge, passing through all coats of the bowel, emerging from the mucous surface. Each suture is tied when put in, and by starting with one at the point of the mesenteric attachment, then taking sutures, first on one side of this point and then on the other, very accurate apposition of serous surfaces is obtained as the sutures are tied, one at a time, till the corners are reached. The last suture should be as near them as is compatible with safety. A longitudinal wound now remains, which may be united by a suture made by passing the needle through all the coats, from within outward, on one side, and from without inward on the opposite side, and tying, when the knots will be within the lumen of the tube. The last two or three sutures may be of the Lembert variety, as the Vezien suture is hard to tie when the longitudinal rent becomes short.—*New York Medical Journal*, July 17, 1897.

OPHTHALMOLOGY, OTOLOGY AND LARYNGOLOGY.

By WM. ELLERY BRIGGS, M.D., Sacramento, Cal.

The Localizing Value of Optic Neuritis in Intracranial Tumors.—DR. J. B. MARTIN has collected and classified the histories of 600 cases of optic neuritis from intracranial tumors, and draws some interesting conclusions. He finds that 68.8 per cent. occur in males, and 31.2 per cent. in females. The growths were sarcoma in 28.5 per cent., glioma in 18.5 per cent., and tuberculous in 16.3 per cent. He calls attention to the number of cases of tumor of the motor area in which pain was stated to be absent, the frequency of occipital headache in cerebral tumors, and of frontal headache in all kinds of tumors. Optic neuritis is constantly present in tumors of the corpora quadrigemina, so that in case of the absence of optic neuritis we can exclude this position for the tumor. The cerebellum and parieto-occipital regions come second, with 39 per cent. of cases of optic neuritis. A very small percentage arise from tumors of the corpus callosum, and the pons, and medulla. In tuberculous tumors optic neuritis is less likely to be present than in gliomatous, cystic, or hydatid growths. The tumor is commonly located on the side on which the convergent strabismus is noted. The author thinks that the optic neuritis has little value in localizing the tumors. When a difference in the intensity of the neuritis is noticed it is twice as probable that the tumor is on the side of the most marked inflammation.—*Lancet*, July 10, 1897.

Two New Creasote Compounds in Nasal and Laryngeal Affections.—DR. FRANK WOODBURY states in an article upon creasote valerianate and guaiacol valerianate, that locally guaiacol acts like solutions of carbolic acid by producing local surface anesthesia. He has used guaiacol valerianate for this purpose, both in full strength and diluted. It produces, after a slight sensation of heat, decided anesthetic effects, which are slower in appearing than after the application of cocaine, and which are not followed by secondary hyperemia. The antiseptic power of guaiacol is also of great value in throat and nose operations. We know of the frequency of the presence of virulent bacilli in the nasal chamber of apparently healthy individuals, and the routine use of detergent remedies, followed by a decided antiseptic, such as guaiacol in oily solution, or the more agreeable valerianate of guaiacol, is now almost necessary in the conduct of hospital and private work. In acute rhinitis it should be diluted with three or more parts of oil of sweet almonds, or liquid alboline, and in this form it acts as a protective, as well as an analgesic and antiseptic. In chronic rhinitis, especially the purulent form, as well as in some varieties of atrophic rhinitis, it is used in full strength with advantage, as many of these cases are kept up by the presence of virulent microörganisms, the action of which is inhibited by the guaiacol. In ulcerated conditions, even of supposed tubercular origin, a few applications of pure guaiacol or creosote valerianate materially promote the healing process, at the same time relieving pain. This observation also applies to the larynx. In tuberculosis of the air passages, external application of pure guaiacol have been recommended. The valerianate (geosote) would have especial advantage for this purpose. Internally, guaiacol valerianate is given either in milk or diluted alcohol, or in capsules. It checks broncorrhea and reduces the number of tubercle bacilli in the sputum at the same time, that tends to prevent reinfection from the intestinal tract. It is well borne in doses of 3 to 6 minims, three times daily.—*New York Medical Journal.*

Double Optic Neuritis in Enteric Fever.—DR. C. BRAINE-HARTNELL reports a case of double optic neuritis in a boy 11 years of age, who died during an attack of enteric fever. The *post-mortem* examination confirmed the diagnosis of typhoid fever, and nothing was found in the brain to account for the optic nerve inflammation. Heretofore the fact that double optic neuritis occurs in connection with symptoms resembling those of typhoid fever had been considered as pathognomonic of meningitis.—*British Medical Journal*, May 29, 1897.

An Improved Intubator for the Relief of Laryngeal Stenosis.—DR. LOUIS FISHER describes a modification of O'Dwyer's intubation tubes to prevent their easy escape from the larynx. They are made of pure vulcanized Para rubber, of sizes varying from Nos. 1 to 5. The outer surface of the tubes are made corrugated to prevent their being easily coughed up. They are of the same length and similar in shape to the O'Dwyer tubes. Each patient should have a new tube. His tubes are introduced without the obturator, and requires a special instrument to put them in place. The tubes being introduced open they are less liable to produce apnea during the operation. A strong silk thread is attached to the tube, and left until a short time after introduction, in order that it can readily be withdrawn in case the membrane is pushed down before it. The tubes and instrument are made for the author by Tiemann & Co.—*Medical Record*, June 9, 1897.

DERMATOLOGY, SYPHILIS AND VENEREAL DISEASES.

Pemphigus of the Mouth.—The eruption of pemphigus sometimes occurs in the mouth and on other mucous membranes. That the disease in the mouth may precede that of the skin in the ordinary form of pemphigus—the chronic—is not generally known, though this is what invariably occurs in a rare form, pemphigus vegetans, and that the disease may remain localized to the mouth and adjacent cavities for a long time, and in some cases entirely, does not appear to be at all recognized in this country. In the *New York Medical Journal*, of July 3d, DR. LEWIS H. MILLER describes a case in which the mouth was affected for 20 months without the skin being involved. The patient was a man, aged 72 years, who complained of soreness in his mouth and inability to take solid food. On the roof of the mouth and on the epiglottis were patches of false membrane of considerable thickness, which, when removed, left a raw, bleeding surface. Some decayed teeth were extracted and antiseptics used, but blebs formed on the roof of the mouth, the soft palate, the cheeks, under the tongue, and on the posterior wall of the pharynx. Bacteriological examination of the membranes gave negative results. There was neither fetor nor salivation. Whenever the patient attempted to masticate solid food a fresh crop of blebs appeared. We consider this fact of great interest and importance. It is perfectly analogous to what may occur in pemphigus of the skin: for local injuries, and even friction or pinching, will in some cases determine the formation of a bulla at the spot. No stronger confirmation of the diagnosis of pemphigus of the mouth when the eruption on the skin is absent could be given than this production of bullæ by such trivial exciting causes. Nothing of the kind, as far as we know, occurs in any other disease. Dr. Miller quotes a number of cases in which the disease existed for long periods, in one as much as 11 years, in the mouth before the skin was affected. The rare disease pemphigus of the conjunctiva may be very instructively compared with pemphigus of the mouth, because in the former disease also a skin eruption may be either absent or present. The treatment is similar to that of pemphigus of the skin, though it does not appear to be very successful. In the case given arsenic seemed to produce some improvement. Opium might be tried. Mr. Hutchinson has shown it to be distinctly curative in some cases of pemphigus in which the mouth is primarily involved.—*Lancet*, August 14, 1897.

A Case of Severe Dermatitis Following Two Exposures to the X Rays. On June 14th M D'ARSONVAL presented to the Academy of Sciences at Paris a case, which had occurred in the practice of Dr. Apostoli, of dermatitis following two exposures to the X rays. The exposures were made upon May 22 and and 28, 1896, the duration of the first sitting being 40 minutes, with the Crookes' tube at a distance of 15 centimeters from the skin, and the second lasted 90 minutes, the tube being at a distance of 9 centimeters. After the first sitting nothing was noticed except great nausea on the part of the patient. After the second, however, an erythema appeared over the area which had been exposed—namely, the abdominal wall—and this erythema was followed by vesication and an abundant serous discharge. These gradually healed, and by July the patient was nearly well; but in August the whole of the affected surface sloughed and a severe burning pain was felt. No application to promote healing had the slightest effect, and skin grafting was equally useless. At the end of October, 1896, the application of a current of oxygen was tried and promoted healing in a slight degree. In February, 1897, electric treatment was commenced. Statical electricity was used, at first alone, and then in combination with high frequency currents. In April, 1897, electric baths were commenced and employed twice a week, the current employed being the undulatory form. These applications had a very good effect, and by June, 1897, the whole affected surface, which measured 17.7 by 13.6 centimeters, was soundly healed. Dr. Apostoli considers that this form of dermatitis may be produced by the tube being too near, the sittings being too long, or even when short if following one another too rapidly, or being too many in number. The dermatitis is very slow in healing, and apparently the best method of treatment is the employment of electric currents, both locally, by using statical and undulating currents, and generally by the exposure of the patient to a high frequency current.—*Lancet*, June 30, 1897.

Gonococcosis.—D'AULNAY (*Rev, Internat. de Méd. et de Chir.*), has published an exhaustive pamphlet on the diseases produced by the gonococcus (a name which he suggests should be modified). He includes tabulated lists showing the order of frequency of infection of various regions in men and women, together with much additional statistical matter. He distinguishes the local and general effects of the miccroörganism under the names of gonococcitis and gonococcie, applying that of gonococcosis to the whole subject. He points out that the local effects are produced by the growth of the diplococcus mainly upon mucous membranes, where it brews a toxin which can be absorbed by the circulatory stream. The microörganism rapidly invades the tissues, particularly the most friable, the cylindrical and serous epithelia, and spreads to the adjoining mucous membranes either by direct cellular infection or by means of the superficial lymphatics. It has considerable powers of penetration, whereby it perforates the vascular walls. and after producing local accidents, such as arteritis, phlebitis, and lymphangitis, enters those organs, which are rich in lymphatics and in small vessels. The author divides the general effects of the virus into two categories. First comes the action of the toxins, which is mainly expended upon the blood, the kidneys, the nervous system, the skin, and the serous membranes, especially of the joints. Secondly, there is the action of microörganisms themselves, which are conveyed in the blood vessels and lymphatics either separately, enveloped in leucocytes, or entangled in emboli, and which manifest their power of rapid growth when in contact with serum. They tend to the production of pus, which is sterile if the gonococcus is alone, infectious if accompanied by other organisms. In the worst cases without obvious cause gonorrheal pyemia may develop.—*British Medical Journal*, July 17, 1898.

MATERIA MEDICA AND THERAPEUTICS.

By WM. WATT KERR, M.A., M.B., C.M., Professor of Clinical Medicine, University of California, San Francisco.

The Serum Therapy of Typhoid Fever.—At a meeting of the Sociéte de Biologie, on January 23d, CHANTEMESSE stated that, in conjunction with

WIDAL, he had investigated the action of serum of animals inoculated with typhoid bacilli in dead cultures. This serum is to a certain degree preventive, but not curative. To obtain a sufficient antitoxic power it was necessary to have active typhoid toxins; he had, therefore, modified the process of ordinary culture; then he sought to breed a microbe of intense virulence. He had long remarked that animals inoculated with Eberth's bacillus often retain that bacillus in a living state in the spleen and in bone marrow. Thinking that these must be favorable media, he prepared culture media of spleen, bone marrow, and a little human blood. In these he sowed, after sterilization, a bacillus which had evolved for two years in successive animals, and which had preserved in a very marked degree the virulence which it had when he extracted it from the blood by puncture of the spleen. After 36 hours there is a film on the surface of this culture medium, and towards the fourth or fifth day the production of toxin is at its maximum. About the fifteenth day it disappears. This toxin keeps well at the ordinary room temperature, but must be in a sealed tube and covered from the light. It is alkaline, and if given to an animal by the mouth it is almost completely inactive; injected under the skin or into the blood it is, on the contrary, very active. Twelve to fourteen centigrammes of dried residue of culture with toxin injected into a rabbit cause "enormous diarrhea," then the animal dies; after a smaller dose the animal shows hypothermia or hyperthermia, and ends by dying in five or six days. A dose capable of killing a rabbit produces in the dog local reaction and hyperthermia. Five centigrammes of dry residue of filtered toxin injected into the veins of a sheep caused grave symptoms; then the animal recovered, and the dose could be repeated at successive intervals. On *post-mortem* examination of an animal which had died, there are found yellow intestinal matters and marked intestinal congestion, but little in the spleen or the liver. By progressive injections in the horse, such as the author has been making for nine months past in the Pasteur Institute, a reaction is only obtained by the injection of 60 cm. of culture. The serum of these horses is definitely antitoxic, as has been seen in animals. In human patients the effects are favorable, but the experiments must be repeated on a much larger scale before a positive conclusion can be based on them.—*British Medical Journal*, February 13, 1897.

Eucaine.—A comparison between eucaine and cocaine suggests the following conclusions: (1) The local anesthetic effect of eucaine is more slowly obtained and is shorter in duration than that of cocaine. (2) Eucaine causes hyperemia of the nasal mucous membrane, and in this action is directly opposed to cocaine. This property of eucaine militates against its use in active inflammatory conditions, but it may be obviated by using equal parts of eucaine and cocaine. (3) Eucaine is a poison similar to cocaine, but is less harmful to the organism in the same doses. It may, however, produce toxic effects which may prove fatal without any prodromic stage. (4) Eucaine may be kept for an indefinite time in solution with sterilized water, 1 part to 10. The solution may be repeatedly sterilized by boiling, without impairing its anesthetic properties.—*British Medical Journal*, February 27, 1897.

Paralysis from the Medicinal Administration of Arsenic.—In a recent number of the *Glasgow Medical Journal*, DR. MIDDLETON has published an interesting case of a boy, aged 11 years, who, on account of a skin affection, had Fowler's solution of arsenic administered to him in increasing doses. The administration was commenced in January and the first symptoms of paralysis appeared in March. Examination in the following June revealed complete flaccid paralysis in all four extremities, with atrophy and loss of knee-jerks. There was considerable pain on pressure of the muscles and nerves, but no obvious impairment of sensibility.—*Lancet*, May 29, 1897.

MEDICINE AND PATHOLOGY.

By ALBERT ABRAMS, M.D., Professor of Pathology, Cooper Medical College, San Francisco.

Internal Secretions Considered in their Physiological, Pathological, and Chemical Aspects.—DR. W. HOWELL, of Baltimore, observed that the one clearly successful method by animal tissues, was that by the thyroid extracts. The theories regarding the extracts are two in number. According to one, the secretion is antitoxic. The other is the neuro-trophic hypothesis which assumes that the thyroid secretions acts normally by promoting or regulating the ordinary metabolic processes of the body. CHITTENDEN, of New Haven, remarked that the administration of thyroid gland and extracts to normal persons produced a very noticeable effect on the metabolism of the body, leading to loss of body weight, and to increased excretion of phosphoric acid, nitrogen, and water. After thyroidectomy, there was an increase in the mucin of the body, especially in the salivary glands. In cases of goitre only minimal amounts of iodine are found. This fact would seem to indicate that the use of iodine as iodo-thyrine would produce a distinct effect on goitre. In human thyroids, and in those of sheep, oxen, and pigs, iodine is present even to the extent of 10 per cent., yet so far as known, it is not normally present in other tissues. The thyroids of some children do not contain an appreciable quantity of iodine. KINNICUTT, of New York, said that the use of thyroid preparations in myxedema could effect complete recovery even in severe cases of long standing. Experience also showed that it was necessary to continue the use of the remedy throughout the lifetime of the patient. The thyroid extract treatment, if begun sufficiently early in the child, was capable of causing a cretin child to develop into a healthy adult. In goitre, the best effects were obtained in simple hyperplastic goitre and the least benefit in cystic goitres. The remedy had become popular in the treatment of obesity.—*Proceedings of Fourth Triennial Congress of American Physicians and Surgeons.*—*Boston Medical and Surgical Journal*, May 20, 1897.

Angina Pectoris.—MUSSER, of Philadelphia, in a paper upon this subject, contended that patients who have had an attack of this affection, are relieved of the paroxysms, if dilatation of the heart supervenes. It seems that the pain in angina pectoris is due to increased intracardiac pressure from the stretching of a tense ventricle.—*Ibid.*

Pericarditis.—SHATTUCK, of Boston, said that this disease was often overlooked because it was not sought for. Rheumatism was the chief cause. Endo and pericarditis may coëxist. Although the diagnosis of pericarditis must rest mainly on the physical signs, these may be absent. Tapping the pericardium as a symptom was referred to. His point of election was in the fifth interspace, 1 to 2 inches to the left of the left nipple, or just inside the left limit of the line of dulness. HARE, of Philadelphia, said the danger of hurting the myocardium was not great. JANEWAY, of New York, thought we could always make out the pyramidal shape of the pericardial effusion.—*Ibid.*

Neurasthenia.—EDES, of Jamaica Plains, Mass., observed that gain in body weight and improvement in neurasthenic symptoms usually go together, but there are enough exceptions to the rule to show, that the nervous nutrition is something more than a mere sample of the general. The more symptoms approach in character the "fixed idea" of the insane, the less amenable are they to the beneficial effect of mere somatic therapeutics. Blood examinations showed that it was not possible to establish any correspondence between the degrees of anemia and the intensity of nervous symptoms. Estimations of the uric acid excretion gave no ground for supposing that neurasthenic symptoms depend in any way upon this substance. Putnam, of Boston, said that neurasthenics look pale, and yet have the normal amount of blood. The uric acid theory is attractive, but devoid of critical spirit.—*Ibid.*

The Roentgen Rays in Thoracic Diseases.—WILLIAMS, of Boston, had watched about 40 cases of pneumonia throughout the course of the disease, and in several noticed especially that the lungs did not become normal until a month after apparent cure. In order to use the rays intelligently, one must be familiar with the normal appearance of the body. He found the rays very useful in detecting any increase in the density of the lungs.—*Ibid.*

Early Recognition of Tuberculosis.—WHITTAKER, of Cincinnati, emphasized the great value of tuberculin in early diagnosis. In the first test 5 millimeters of tuberculin should be used and so on up to 2 centigrammes. There should be no reaction if no tuberculosis is present. SHATTUCK, of Boston, said that tuberculin had been used in his hospital and no harm had come from it. If tuberculin were used regularly, the number of cases would be increased, but there would be more recoveries. MASON, of Boston, said that tuberculin had often been the means of deciding whether to do a laparotomy or not when depending on the presence or not of tuberculous peritonitis.—*Ibid.*

MENTAL DISEASES AND MEDICAL JURISPRUDENCE.

By A. W. HOISHOLT, M.D., Assistant Physician, State Asylum for Insane, Stockton, Cal.

Hysteria and Hysterical Insanity.—DR. E. SOKOLOWSKI defines hysteria as a disease, the equivalent of the mental equilibrium present in the subjectively perceived deficiency of degenerated individuals. The developing psychical forces inspire them to play a role in life, but their mental inferiority threatens to bring about an early fiasco, which they seek to escape by drifting into crime, convent, suicide, etc., or they find in sickness the means of protecting themselves from the burdensome fight for existence, and of securing the attention of the surroundings and their sympathy even in subjectively perceived ailments. This desire to be sick is the primary characteristic of hysteria; it hastens the climax of the disease and makes use of diseased conditions already present. The symptoms of hysteria may be divided into four categories: (1) Occasional symptoms, *i. e.*, organic changes. (2) Symptoms which have been developed by suggestion or autosuggestion, such as blindness, deafness, aphonia, analgesia. (3) Processes which, as to their nature and origin, are appreciated by the patients and in which they play an active role, such as muteness, convulsive attacks, somnolence, insanity. (4) Imaginary symptoms. The hysterical stigmata are not in themselves sufficient evidence of a hysteria, nor are they characteristic of every case of hysteria. The mental inferiority of the hysterical, who are unable to master the emotions, but of which they nevertheless make use, gives to hysterical insanity a specific character. Compulsory ideas and illusions are met with in great profusion, while real hallucinations, delusions, and confusional ideas are absent.—*Centralbl. f. Nervenh. n. Psychiatrie.—Centralbl. f innere Med.*, May 29, 1897.

Puerperal Psychoses.—DR. O. KNAUER reports 82 cases of puerperal insanity observed at Kahlbannis Hospital, the majority of which belonged to the better class of society. He divides his cases according to Olshausen into psychoses of infection, idiopathic psychoses without bodily disease, and psychoses of intoxication following eclampsia. Of the first group there were 9 cases, 71 belonged to the second group, and 2 were of the toxic form of insanity. With regard to the clinical picture there were rather more cases of the melancholic than of the maniacal type. Of the 82 cases, 56 were cured or improved; 26 did not recover.—*Centralbl. f. innere Medicin*, June 26, 1897.

Senile Epilepsy and Griesinger's Symptom of Basilar Thrombosis.—PROF. NANNYN reports having been able to cause epileptic conditions by compression of the carotids in three male patients suffering from senile epilepsy. After the compression had lasted one-half to one minute, the eyes, mouth, and hands became spasmodic; there was a loss of consciousness and mild clonic contractions in all four extremities, with dilatation of the pupil and diminution in the pulse rate. After the compression had ceased vertigo continued for some time, after which the patient seemed perfectly well. The compression of the carotids in elderly people is, however, not without danger. It may, so it is claimed by Nannyn in opposition to Griesinger, cause spasms in the absence of basilar thrombosis whenever the arterial circulation in the brain is disturbed by valvular disease, heart insufficiency, or arterio-sclerosis.—*Jour. de Neurol. et d'Hypnol.—Centralbl. f. innere Medicin*, May 29, 1897.

Consent of Widow Necessary to Authorize an Autopsy on the Body of her Deceased Husband.—MR. LORENZO D. BULETTE, of Philadelphia, reports a case of this kind, which was recently settled in the Appellate Division of the Supreme Court of New York. The complaint sets forth that on May 16, 1894, the plaintiff's husband fell through an elevator shaft in a building in the city of New York, and was taken in an unconscious condition to the Bellevue Hospital, where he died three hours after his admission; that the plaintiff was a loving and devoted wife, and was under the duty and obligation, and had the right, of burying her husband: that she applied at the hospital for his body, and begged and implored those who were in charge of it not to allow or permit an autopsy to be performed, and gave notice that she would immediately send an undertaker for the body to remove it to her home, where it would be prepared for burial; that, notwithstanding her request and protestations, the defendant, without her knowledge or consent, procured, assisted, aided, and abetted in performing an autopsy on her husband's body, which autopsy was performed without any authority of law, and was wilfully done, by cutting open and otherwise abusing and maltreating the dead body. The complaint then proceeded to state matter intended to be in aggravation of damages, and ended with a demand for a money judgment. The defendant, in the demurrer, made two objections to the maintenance of this action: (1) That if any one may bring an action of this kind, it must be the next of kin, and not the widow. (2) That there is no such thing as property in human remains, and consequently, no right of action in any one for their mutilation. Mr. Justice Patterson, in his opinion, says: "The question presented in this case seems to be one of first impression in this jurisdiction, and comes before the Court of Appeal from a judgment overruling a demurrer to the complaint. Stated with precision, the inquiry is whether the defendant is liable civiliter, and to this particular plaintiff, for the unlawful dissection of the remains of her husband—an act not only unlawful, but constituting, on the assumption that the facts alleged are true, a criminal offence." The Court decided, that a surviving wife is entitled to the possession of the body of her deceased husband, in the same condition as when death occurred, for the purpose of giving it proper care and burial, and she may sue for damages a physician, or other person who, without her consent, unlawfully or wantonly dissects or mutilates the body before burial. (Foley v. D., 37 N. Y. S. 471; 1896.)—*International Medical Magazine*, May, 1896.

Brain Tumors and Jacksonian Epilepsy—Diagnosis and Surgical Treatment.—PROF. FR. SCHULTZE reports 5 cases of brain tumor, in 2 of which Jacksonian epilepsy was present. The symptoms in the first case were: Bilateral ophthalmoplegia externa, with little involvment of the sixth nerves, ataxia, dysphagia, dysphasia, moderate exaggeration of the tendon reflexes in the lower limbs, disturbance of the vesical functions, choreiform movements of the lower extremities, intense apathy, swelling and reddening of the papillæ. Parasthesia in both hands and feet was complained of in the beginning of the disease. The symptoms seemed to point toward tumor in the region of the corpora quadrigemina, and were very similar to those observed in a case of tumor of this region reported by Bruns. In the course of some months the symptoms entirely disappeared, which rendered the diagnosis improbable, and Schultze changed it to a case of polioencephalitis and ependymitis, with a mild degree of hydrocephalus and consequent pressure-symptoms. A psychosis developed afterward, which Siemerling has frequently found associated with ophthalmoplegia. In the second case the diagnosis of brain tumor was correct, except as to the exact location, which was supposed to be on the left side, because the pain was at first more on the left side, the left abducens was weaker than the right, and because the right half of the body became afterwards paralyzed. The tumor was found in the lower half of the cerebrum, but chiefly on the right side. A dilatation of the left lateral ventricle, which was found, may be regarded as an explanation of the right-sided paralysis. The diagnosis of tumor in the third case was correct, and the growth, though large, was easily removed, but the patient, a vigorous young man, died a few hours after the operation. In the fourth case there was partial right-sided facial paralysis, with occasional paresis of the right arm. Cerebellar gait had been noticed. A diagnosis of tumor was made, and the autopsy revealed a large one in the left facial center, with displacement of the surrounding tissue. A cyst was found somewhat more anteriorly in the medullary substance. The absence of distinct attacks of Jacksonian epilepsy and the slight degree of the facial paralysis were remarkable considering the large size of the tumor. In the fifth case the symptoms were: Rigidity of the neck, headache in the frontal and occipital region, hyperalgesia of the muscles of the legs, vomiting, frequent yawnings, papillitis in both eyes, rhythmical contractions of the right sterno-cleido-mastoid, apathy, paralysis of the right external rectus with weakness of the internal. The operation revealed a tumor of the right frontal lobe. The patient died soon after the operation. Prof. Schultze considers cranial resection a rather dangerous operation, and believes that the lowering of the intracranial pressure after removal of a large tumor, is a source of danger. In 2 cases of Jacksonian epilepsy operated on, Schultze found no permanent relief from the operation.—*Zeitschr. f. Nervenheilkunde.*—*Journal Nervous and Mental Disease*, May, 1897.

FORMULÆ.

By H. E. SANDERSON, Ph.B., M.D., Assistant Physician State Asylum for Insane, Stockton, Cal.

New Pimple Cure.—DR. WALLISON recommends fluid extract of berberis aquifolium; dose, 10 to 30 minims, three times a day.—*Pract. Druggist*—*Rev. of Reviews.*

Castor Oil Externally.—Castor oil heated and thoroughly applied to the abdomen is said to be as efficacious for children as when taken internally.—*Pract. Druggist*—*Rev. of Reviews.*

Duboisine for Epilepsy.—Sulphate of duboisine, in doses of $\frac{1}{20}$ to $\frac{1}{60}$ grain injected daily, is recommended in *Riforma Medica* for epilepsy with psychic disorders.—*Atlantic Medical Weekly*—*Lancet-Clinic.*

Pertussis:

Sulfonal	gm. 0.06
Creasot.	
Syrup tolutan.	
Aquæ distilat.	āā 30.0

S.—Two teaspoonfuls every two hours.—*Practitioner*—*Rev. de Thérap.*

Senile Cystitis:

Fld. ext. hydrang.	ʒ ii
Tinct. gentian. comp.	ʒ iv
Tinct. staphisagris.	
Tinct. cannabis indicæ	āā ʒ i
Syrup aurant. cort.	*q. s. ad.* ℥ iv

S.—Teaspoonful three times a day. *Med. Fortnightly*—*Med. and Surgical Reporter.*

Creasote for Sequelæ of Pertussis and Measles.—HOCK, in the *Wiener med. Blätter*, recommends:

Creasote	gm. 1–2.0
Sugar	0.05
Codliver oil	100.0

S.—Half teaspoonful to one tablespoonful, according to age of patient. *Medical News.*

Mastitis and Orchitis.—Fld. ext. of phytolacca.

S.—Five drops, in a little water, every two hours.—*Lancet-Clinic.*

Favus—Pirogoff's Ointment.

Potass. carb.	gm. 8.0
Flor. sulphur.	30.0
Tinct. iodi.	
Picis liquidi	āā 100.0
Adipis	200.0—M
Ft. ungt.	

S.—Apply in thin layer, on lint, daily. (The sulphur and tar act as antiparasitics; the iodine removes the hair.)—*Pediatrics.*

Broncho-Pneumonia in Children. MARFANI advises the following:

Sodii benzoat	gm. 0.5
Ammon. acetat.	1.5
Spts. vini cogn.	8.0
Mist. gummos.	
Syrupi	āā 45.0—M

S.—Teaspoonful every two hours.—*Rev. Internat. Pediatrics.*

To Remove Nitrate of Silver Spots:

Hydrarg. bichlorid.	gm. 5.0
Ammonii muriat.	5.0
Aquæ distillat.	40.0

S.—Apply with cloth, then rub. This is said to remove even old stains from linen, cotton, wool, or skin.—*Monatsch. f. Prakt. Derm.*—*Medical Fortnightly.*

Chestnut for Hemorrhoids.—Tincture of horse chestnut, ten drops, in sweetened water, before meals, twice daily, is said to stop the pain and cure the trouble. ASTAULT tried it in 21 cases.—*Medical Record.*

PUBLIC HEALTH.

By W. R. Cluness, M.A., M.D., San Francisco, Cal.

Mortality for June, 1897.—The deaths registered in 33 town districts of the State, during the month of June, in a population of 669,712, correspond to an annual rate of 15.96 a thousand, the total mortality having been 891. 74 deaths were due to zymotic diseases, giving an annual rate of 1.10 a thousand. Of these, 14 were due to diphtheria, 25 to cholera infantum, 1 to whooping cough, 14 to croup, 8 to intermittent and remittent fevers, 2 to scarlet fever, 1 to measles, and 7 to typhoid fever. 191 deaths resulted from diseases of the respiratory organs, giving an annual rate of 3.42 a thousand. Of these, 118 were due to consumption, 54 to pneumonia, 16 to bronchitis, and 3 to pulmonary congestion; the rate being, for consumption and pneumonia, 2.11 and 0.96, respectively. 108 deaths resulted from diseases of the heart, 1 from alcoholism, 6 from erysipelas, 35 from cancer, and 401 from causes not given. The average annual death rate from all causes occurring in the ten largest cities and towns in the State, and representing a population of 600,000, was 13.30. The highest rate for the month occurring in cities having a population of 10,000 or more inhabitants, was reported from San Francisco, the lowest from San Diego.

Mortality for July, 1897.—The deaths registered in 31 town districts of the State during the month of July, in a population of 749,100, correspond to an annual rate of 13.80 a thousand, the total mortality having been 865. 55 deaths were due to zymotic diseases, giving an annual rate of 0.82 a thousand. Of these, 12 were due to diphtheria, 15 to cholera infantum, 3 to whooping cough, 4 to croup, 0 to intermittent and remittent fevers, 0 to scarlet fever, 0 to measles, and 6 to typhoid fever. 197 deaths resulted from diseases of the respiratory organs, giving an annual rate of 3.14 a thousand. Of these, 133 were due to consumption, 40 to pneumonia, 19 to bronchitis, and 5 to pulmonary congestion; the rate being for consumption and pneumonia, 2.13 and 0.60, respectively. 106 deaths resulted from diseases of the heart, 3 from alcoholism, 1 from erysipelas, 52 from cancer, and 397 from causes not given. The average annual death rate from all causes occurring in the ten largest cities and towns in the State, and representing a population of 671,500, was 12.61. The highest rate for the month occurring in cities having a population of 10,000 or more inhabitants was reported from San Francisco, the lowest from San Diego.

METEOROLOGY.

Summary for July, 1897.—*Temperature.*—The normal temperature of the State for July is 73.1°; the average for July, 1897, was 74.5°, a departure from the normal of +1.4°; the highest monthly mean was 107°, at Salton; the lowest 54.4°, at Point Reyes light. The maximum temperature was 124°, at Salton, on the 22d. The minimum, 21°, at Bodie and Nevada City, on the 6th, 7th and 22d. The absolute range for the State was 103°. The greatest monthly range was 68°, at Nevada City; the least, 21°, at Eureka.

Rainfall.—The normal precipitation for the State for July is 0.05 inches; the average for July, 1897, was 0.01 inches, a departure from the normal of −0.04 inches. The greatest monthly precipitation was 0.62 inches, at Descaso; the least, nothing, at various places.

Wind.—The prevailing direction of wind was W.

Unusual Features.—There were no unusual meteorological phenomena.—Alexander McAdie, U. S. Department of Agriculture, Weather Bureau, San Francisco.

California—Tabular Statement for July, 1897.

STATIONS.	TEMPERATURE.						RAINFALL.		Mean Relative Humidity	WEATHER.			WIND.	FURNISHED BY—
	Mean	Highest	Lowest	Mean Highest	Mean Lowest	Mean Daily Range	No. of Days Rain Fell	Total Rainfall		No. of Clear Days	No. of Fair Days	No. of Cloudy Days	Prevailing Direction.	
Auburn .... Cal.	77.6	104	59	----	----	----	----	----	----	27	4	----	N.W.	Southern Pacific Company.
Berkeley .... "	59.9	84	51	66 5	54.7	19 0	----	----	80 9	19	8	4	S.	Obs. University of California.
Colfax .... "	73.4	102	50	----	----	----	----	----	----	29	2	----	N.E.	Southern Pacific Company.
Coronado .... "	----	----	----	----	----	----	----	----	----	----	----	----	----	Hotel del Coronado.
Eureka .... "	55.8	67	46	60.7	50.9	----	2	0.03	----	15	13	3	N.W.	Weather Bureau Dept. Agr.
Fresno .... "	83.0	110	52	100.8	65.1	----	----	----	----	27	4	----	N.W.	" " "
Keeler .... "	----	----	----	----	----	----	----	----	----	----	----	----	----	" " "
Los Angeles .... "	70.0	86	52	80.0	59 0	----	1	T	----	6	25	----	W.	" " "
Monterey .... "	59 7	72	50	----	----	----	----	----	----	1	19	11	W.	Southern Pacific Company.
Napa .... "	67.0	102	46	85.1	52.5	32.6	----	----	71 4	21	10	----	S.W.	Station Napa Insane Asylum.
Oakland .... "	63.0	84	50	73.3	52.7	20.06	1	T	75.24	16	15	----	W.	Chabot Observatory.
Paso Robles .... "	80.5	105	57	----	----	----	----	----	----	29	2	----	W.	Agr. Experimental Station.
Red Bluff .... "	82.1	106	59	96.7	67.5	----	----	----	----	29	2	----	S.E.	Weather Bureau Dept. Agr.
Sacramento* ... "	75.5	105	52	91.6	59.5	----	----	----	----	30	1	----	S.W.	" " "
San Bernardino "	74.8	102	48	----	----	----	----	T	----	25	6	----	W.	A. K. Johnson, M. D
San Diego .... "	67.0	79	59	71.1	62.9	----	1	0.01	----	29	1	1	N.W.	Weather Bureau Dept. Agr.
San Francisco .. "	58.0	82	47	65 1	51.2	13.9	1	T	84.4	19	12	----	W.	" " "
Santa Barbara .. "	65 3	81	51	71.5	59.5	14.6	----	----	76.0	23	8	----	W.	Hugh D. Vail.
Santa Cruz ...... "	61.9	89	41	----	----	----	----	----	----	17	8	6	W.	W. R. Springer.
Yuma .... A. T.	----	----	----	----	----	----	----	----	----	----	----	----	----	Weather Bureau Dept. Agr.

Blank (----) indicates data missing.

*Humidity at Sacramento at 5 P. M.

Occidental Medical Times.

COMMUNICATIONS are invited from all parts of the world. When necessary to elucidate the text, illustrations will be furnished without cost to the author.

SACRAMENTO: SEPTEMBER, 1897

DISINFECTION BY FORMALDEHYD GAS.

From the time when the value of disinfection was recognized and its purpose understood, there has been a constant demand for some method whereby apartments, houses, ships, railway cars, vehicles, etc., as well as their contents, could be disinfected without inflicting excessive or permanent damage upon the structures submitted to the process. This demand has, in part, been met by the combustion of sulphur and the generation of sulphurous acid gas, and, in part, by steam. The sulphur process, as ordinarily carried out, is worthless. On the other hand, disinfection by steam demands the establishment of a plant for the generation of vapor, or else a portable apparatus, more or less complicated and bulky. In addition, thorough disinfection by steam is exceedingly destructive to articles submitted to it, some being ruined by even a limited exposure. It would seem that, with the introduction of formalin or formaldehyd, a recent candidate for professional favor as a disinfectant and antiseptic, this difficulty has been solved.

Formic aldehyde, H. C H O, is prepared by conducting the vapors of methyl alcohol mixed with air, over glowing coke or metal spirals. The alcohol is removed by distillation, and the solution concentrated to 40 per cent. strength. A solution of 1:5000 is sufficient to prevent the development of bacteria in meat juice, and a strength of 1:2000 kills the anthrax bacilli. It is miscible in all proportions with water.

There is no question as to the antiseptic value of formalin, even in very dilute solutions, and its power in this direction would lead us to believe that, in the form of vapor, it would be effective. As a disinfectant it can be used either in solution or vapor, but as the need to which we have alluded demands an agent that can be applied in the form of gas, formaldehyd seems to meet the requirements exactly.

In the report of the Supervising Surgeon-General of the Marine Hospital Service, for 1896, is to be found a preliminary announcement of experiments that had been conducted by the Bureau, in order to determine the value of the new agent, which even then were considered to have demonstrated that it would "revolutionize the system of disinfection as now practised."

Recently, under date of August 5, 1897, the Secretary of the Treasury has issued a circular to State and local quarantine authorities, amending Article 5, "quarantine regulations to be observed at ports and on the frontiers of the United States, by adding two paragraphs, 8 and 9." As this, while applying to ships, gives, in a very succinct manner, the method to be followed, when employing formaldehyd gas, we reproduce it *verbatim:*

Disinfection of steerage, forecastle, and cabin of vessels by formaldehyd gas.—After the removal of the bedding, carpets, and furnishings, all apertures being tightly closed, the steerage, forecastle, and cabin of a vessel may be disinfected by formaldehyd gas in a percentage of not less than 2 per cent. per volume strength, the time of exposure to be not less than twelve hours. The gas may be generated by one of the following methods:

(*a*) From methyl (wood) alcohol by means of special lamps, using not less than 600 grammes (750 cubic centimeters, 1$\frac{4}{5}$ pints) of methyl alcohol for each 25.5 cubic meters (1,000 cubic feet) of space, the time of exposure to be not less than twelve hours. Lamps used for generating formaldehyd gas from methyl alcohol should change not less than 1 liter (1.01 quarts) of the alcohol within an hour.

(*b*) From an aqueous solution, containing 40 per cent. of the gas, known under the names of formalin, formol, or formalose. The gas is best evolved from these solutions by the addition of from 10 to 30 per cent. of a neutral salt, preferably calcium chloride or sodium nitrate, and heating the mixture in a special boiler. One liter of a 40 per cent. solution of formaldehyd gas will evolve about 1,425 liters (50.1 cubic feet) of the gas at 20° C. (68° F.), and will be sufficient for 71 cubic meters (2,505.5 cubic feet) of space.

(*c*) From the substance known as trioxymethylene by means of a special lamp, not less than 2 grammes (30 grains) to be used for each cubic meter (35.29 cubic feet) of space.

After the disinfection of apartments by formaldehyd gas, the latter should be neutralized by ammonia gas, evolved from water of ammonia by heat, or by evaporation from water of ammonia sprinkled upon the floor. The quantity of water of ammonia required for neutralization, after each of the above-named methods, is as follows: After method (*a*), 1 liter (1.01 quarts) of water of ammonia for each 1,000 cubic centimeters (1.01 quarts) of wood alcohol used; after method (*b*), 1$\frac{1}{4}$ liters (1.26 quarts) of water of ammonia for each liter (1.01 quarts) of formalin; after method (*c*), 1 liter of water of ammonia for each 150 grammes (5 ounces) of trioxymethylene.

Disinfection of clothing, bedding, upholstered furniture, articles of leather, etc., by formaldehyd gas.—These may be disinfected by formaldehyd gas in the ordinary steam disinfecting chamber, the latter to be provided with a vacuum apparatus and special apparatus for generating and applying the gas. The gas should be applied in a dry state in not less than 20 per cent. per volume strength, the time of exposure to be not less than one hour. Clothing, bedding, etc., thus disinfected should be exposed *in situ* to an equal amount of ammonia gas generated by the special apparatus attached to the chamber, using 1 liter of water of ammonia to each liter of formalin; or compressed ammonia gas may be used. The special apparatus must consist of a generator, constructed of copper, for evolving formaldehyd gas from its solutions, and a similar one of iron for evolving ammonia gas for neutralization. The principle upon which this apparatus is constructed is described and illustrated in Public Health Reports, Marine Hospital Service, January 29, 1897, vol. xii, No. 5.

The application of the disinfectant can, of course, be modified to suit the circumstances of the case, but the foregoing will be useful as indicating the principles which must be followed.

NOTES

Public Health Statistics.

For many years, in fact from its second number, THE MEDICAL TIMES has regularly published a tabulated statement of the deaths, from all causes, and the death rate from certain types of diseases occurring each month in California. These statistics were, in the main, obtained from the monthly reports of the State Board of Health, supplemented from time to time by figures obtained from independent observers. In August last, for the first time since the establishment of this department, we were compelled to go to press without these figures. This was due to the fact that no report was procurable from the office of the State Board of Health, the last report being for the month of May. The immediate cause of this unfortunate omission was the vetoing, by Governor Budd, of the appropriation for the State Printing Office. Following the necessary closure of this establishment the State Board of Health, having no special funds for printing at its disposal, was compelled to discontinue the issuance of its regularly monthly circular. Through the courtesy of Dr. W. P. Mathews, the Secretary of the State Board of Health, we are enabled in the present issue to present the regular mortuary report for July, together with that of June, which was omitted from our last issue. We trust that it will be possible to pre-

sent these figures regularly hereafter, and until arrangements have been made for public printing we shall be glad to furnish any members of the profession who may desire it any information in this connection.

The Lane Medical Lectures,

Announcement has been made of the second annual course of the Lane Medical Lectures, which will be delivered at Cooper Medical College, by Mr. Christopher Heath, of London, late President of the Royal College of Surgeons of England. The course will open on Monday, Sept. 20, and close Friday, Sept. 24. The lectures, which will be delivered at 11 A. M. and 8 P. M., will be on the following subjects: Sept. 20, two lectures on Congenital Malformations; Sept. 21, two lectures on Diseases of the Rectum; Sept. 22, two lectures on Diseases of the Jaw; Sept. 23, one lecture on the Tongue and one on the Joints; Sept. 24, one lecture on Aneurism and the concluding lecture, which is entitled "A Century of Surgery." The name of the distinguished lecturer has been familiar to the profession for many years, and as a teacher and writer he is well known.

SPECIAL ARTICLES.

THE DEMAND FOR AFFILIATION BY A HOMEOPATHIC SCHOOL WITH THE UNIVERSITY OF CALIFORNIA.

During the last two months the Hahnemann Hospital Medical College of San Francisco has presented to the Board of Regents of the University of California a request for affiliation as a teaching body. The demand was persistently pushed after the manner of the advocates of sectarian medicine, and was in time refused by the Regents. It is difficult to see upon what grounds such a request can be made at the end of the nineteenth century, or how it can be supposed that medical science, as fostered by the State University, can take a backward step of 100 years, and thereafter remain in a state of desiccated desuetude. Amongst the arguments presented against the proposed affiliation was the following, which was in the form of an address to the Board of Regents, by DR. W. S. THORNE, of San Francisco. This gives a very fair idea of the real position to-day of sectarian medicine in the civilized world. The address is as follows:

Gentlemen: "Lexicographers define the term University as 'an association of men for the purpose of study, which confers degrees which are acknowledged as valid throughout Christendom; is endowed and is privileged by the State, in order that the people may receive intelligent guidance, and that the theoretical problems which present themselves in the development of civilization may be resolved.'

"I assume the above definition as applicable to the Institution over which you preside. Upon your wisdom and enlightenment depends the influence of the University in molding our civilization and promoting our scientific knowledge.

In your hands lies the destiny of a great University, and the power to make its degrees "acknowledged as valid throughout Christendom." Upon the wisdom of your counsels depends the position which the University of California will take among the great teaching bodies of the world, and posterity will reward your fidelity for preserving and perpetuating its honored and unsullied name. Duly impressed with the weighty responsibilities of your charge, I assume that whatever radical change in the University, involving new departments of study, and of far-reaching effect, will only be made by you in the *interest of science*, and for the elucidation of those rare and interesting problems that present themselves in the development of civilization. I assume that the inauguration of a Department of Study, heretofore foreign to the University, will merit at your hands an exhaustive and *judicial* consideration, especially so as the precedents, such as the Universities of Ann Arbor and of Iowa, which might guide you, are limited and uninviting exemplars.

"The question of affiliating a homeopathic department with the University of California can only be considered by you for the following reason: That the system known as homeopathy shall be found to be so clearly identified with science, and so distinctly recognized by the scientific world, as to render its study advisable under the auspices of a great University of sciences and letters.

"These questions must be considered by the Regents from a purely impersonal standpoint. Individual proclivity, social or political influence, professional relationship, must alike be set aside in determining the question to open the University to homeopathic instruction, and henceforth to stamp it with the seal of its authority. In deciding this question the Regents may be considered as judges sitting as a court. The question at bar is a question of *science*, and the weightiest evidence is that given by duly qualified scientific witnesses. The mind of the court should be guided exclusively by the attitude and opinion of the scientific world on the matter before it. The severest criticism awaits a decision upon this important cause, that is not based upon a judicial and impartial consideration of the *evidence*.

"Speaking as a witness for regular medicine and surgery, whose votaries number upwards of one hundred thousand in this country, representing every institution of science and letters in the civilized world—this body of cultured men, representing all that is known in physical and abstract science, has failed to perceive that homeopathic theory and practice of medicine is based upon the natural sciences, or is related thereto.

"In Germany, the birthplace of Hahnemann and the home of homeopathy, there is not a college or a faculty teaching homeopathy within its borders. Germany, the land of ardent scientists, the most progressive in medical knowledge, the first in medical discoveries, ignores the existence of a science which the University of California is asked to incorporate in its curriculum. In the hospitals and clinics of the great European centers, where masters, distinguished for their learning or their discoveries, instruct the students from all nations of the globe, one neither sees nor hears ought of homeopathic medicine or surgery. This silence upon a subject so fraught with interest to suffering humanity, as the homeopaths would have you believe, is ominous. This silence must needs be explained by the advocates of homeopathy.

"In the city of London, with a population of four millions, there are some two hundred homeopaths. In Great Britain and Ireland, with a population of forty millions, there are between three and four hundred followers of Hahnemann. In America they flourish to an unprecedented degree—they number some fifteen thousand, and they have numerous hospitals and colleges. In America the conditions for homeopathic development are favorable. In this country there is a glaring inequality in the severity of medical education and examination. Every State determines for itself the conditions and qualifications in medicine—hence a larger number of colleges granting diplomas upon the most inadequate and unequal conditions. Medical education, to a great extent, is here a commercial enterprise of a low order. Under the favoring conditions of a young civilization, and the operation of lax and unequal laws, every conceivable 'ism, 'pathy, and 'scism has found upon our soil congenial conditions. As healing of the sick is a vocation that evokes the largest element of credulity, medicine has ever furnished a fruitful field for the operations of the pretender and the impostor. We have hospitals under the auspices of the Mind Cure, the Faith Cure, Psychopathy, Hydropathy, Christian Science, Electropathy, Hypnotism, the laying on of hands, and kindred delusions by the score. They number their votaries by the thousands. They include among their patrons the wealthy, the refined, and the most intelligent of our citizens. As taxpayers and contributors to the University Fund, they might demand your honorable Board for affiliation with their several schools. It is for your honorable Board to determine where affiliation should begin and where it shall end."

In science, arts, and literature, as well as in religion, there have always been "False Prophets" and "Wolves in Sheep's Clothing." The material upon which the charlatan feeds and fattens is plentiful to-day as ever. It cannot, therefore, be assumed that such a controversy is ended, for repression in one direction is often followed by an exacerbation in another.

SOCIETY PROCEEDINGS.

SACRAMENTO SOCIETY FOR MEDICAL IMPROVEMENT.

Regular Meeting, June 15, 1897.

The President, W. J. HANNA, M.D., in the Chair.

New Member.—B. S. NOURSE, M.D., was duly elected a member of the Society.

A Case of Tetanus following Compound Fracture of Radius.—DR. L. A. HARCOURT reported the following case: On May 21, W. H——, aged 12, fell from a tree to the ground, a distance of 12 to 16 feet, striking on the palmar aspect of the hands, fracturing both forearms above the wrist. The fracture of the left arm was simple, that of the right compound, the lower or carpal end of the radius protruding through the skin an inch or more. The ulna of the right arm [illegible] broken in its lower third, the radius simply separated from its lower epiphy[illegible]. The end of the radius was covered with dirt, and the wound packed full of the same material. It was not simply clean clay, but filth, manure, vegetable matter undergoing decomposition, and animal excreta, prolific media for microörganisms. The boy was seen by me at 6 P. M., and by Dr. Huntington a few moments later, Dr. Huntington continuing in the case to the end. Under chloroform the wound was carefully examined, as carefully washed with mercuric solution; arm and hand washed in same solution, and the fractures reduced and dressed. To replace the radius, the laceration on the front of the wrist had to be enlarged. Even then reduction was effected with difficulty, so great was the tension. Morphine and potassium bromide were given to relieve pain; sulphonal to secure sleep. The patient was seen again at 9 P. M. He complained that his arms were tired. They were examined, and the bandages not being tight were not disturbed. Temperature 100.5° F. May 22, 10 A. M. Boy complained of pain, but had rested well. Bandage removed, wound washed and dressed. At 9 P. M. he was comfortable, temperature having fallen from 101° to below 100°; bowels and bladder acting regularly. May 23, 8 A. M. Boy seemed in good condition; had slept well; temperature 100°; arm slightly swollen; dressed under chloroform; discharge serous and free from odor; was not seen again that day. May 24, 8 A. M. Temperature 101°; arm painful and swollen; boy nervous and fretful, though he had slept fairly well; wound thoroughly irrigated and dressed under chloroform; antiseptic measures strictly observed; discharge free from offensive odor; temperature at 9:30 P. M. 101.5°. May 25, 8 A. M. Arm more painful and swollen; temperature 102°. Bowels and bladder active. Condition of patient not so good as on previous day, yet not alarming. The increased temperature, anxious expression of face and dread of pain might indicate infection, or be regarded as premonitory symptoms of lockjaw. The patient was certainly more nervous and irritable. Wound dressed as before; discharge not offensive; dressed and irrigated again at 5 P. M. At 9 P. M. temperature 103°; phenacetine given. May 26, 8 A. M. Patient had a bad night, slept little, and talked in his sleep; difficulty in swallowing; articulation muffled and indistinct; temporal, masseter, and pterygoid muscles somewhat rigid; under jaw set, but not tightly; in fact, there were distinct symptoms of lockjaw. Patient placed under chloroform, dressing removed, incision extended to relieve tension and favor discharge; wound irrigated, splints left off, arm covered with gauze, wrapt in flannel saturated with solution of opium and acetate of lead, and the whole covered with oiled silk. Chloral hydrate and potassium bromide administered *per rectum;* temperature in rectum 103°. Dressing changed at noon and wound irrigated as usual. At 5 P. M. Dr. W. A. Briggs saw patient with physicians in attendance. No change of treatment suggested, and none made. Patient resting under the influence of chloral. At 7 P. M. convulsive movements occurred, at first slight and infrequent, gradually increasing in frequency and severity. About 9 P. M. I was called by telephone, and was at the boy's bedside half an hour later. Paroxysms were then frequent and severe. The convulsive movement began in the diaphragm, with a wave-like movement passed upwards, gathering force and fury as it rolled along until it reached the precordial region, when it seemed to concentrate all its energy in a single effort to crush the central organ of the circulation, paralyze respiratory movements, and strangle its victim in its deadly grasp. Great beads of perspiration stood out upon the forehead, face, neck, and chest, saturating the pillow cover as effectually as if dipped in a tub of water. Respiration, at first abdominal, became wholly thoracic, grew slower, shorter, and shallower, ending in a feeble gasp. The expression of agony was extreme, the face cyanotic, showing that the decarbonization of the blood was incomplete. To relieve this distressing condition, large doses of chloral were administered by enema, and chloroform given during the paroxysms. Muscular rigidity became relaxed. Mucus could now be wiped from the throat, and the mouth moistened by sponging it out with lint dipped in water. I remained until midnight. Patient was then sleeping, and I left to return in the morning, if not called sooner. May 27. At 5 A. M. the boy's father called me, and I was there a few minutes later. Condition of patient same as night previous, only weaker. The heart beat feebly, yet convulsively. Its sounds could not be distinguished. Distant cataract one confused and continuous murmur. Finally, at 6 A. M., they ceased and the boy was dead, 5 days and 12 hours after the receipt of the injury, and 12 hours after the first tetanic spasm.

DR W. H. WENTWORTH read a paper on "Some Considerations on Artificial Anesthesia." [Published at p. 493.]

DR. J. H. PARKINSON: I realize that the discussion on this subject is endless. One fact in the choice of ether or chloroform is that, no matter what statistics you take, a certain number of cases die. Some deaths occur, no doubt, from the fact that the presence of organic disease is overlooked. There is, however, a vast difference to an operator, and also to the family, between a patient dying on the table before the operation is completed or dying in his bed several hours afterwards. The effect upon the family and upon the operator is very different. In one case death is due to the operation, in the other it may be due to a variety of causes. I shall keep on using ether in the majority of cases, and shall never use chloroform, without the feeling that that particular case might go wrong. Again, when serious symptoms develop with ether there is a field for doing something, while, with any serious symptoms in chloroform, I feel uncomfortable; I feel that something may be going wrong, and that it may be beyond my power to stop it. As regards the conditions arising from the use of the Ormsby inhaler, that a certain amount of carbonic poisoning will take place, I admit. My experience with the Allis inhaler is not sufficient to enable me to speak authoritatively. Regarding the Ormsby inhaler, I have used it for many years, and have never seen any of the unfavorable results the author fears. Many others who use it also fail to report any disastrous results. Even Mr Woodhouse Braine, of London, who is very largely engaged in that line, speaks favorably of this very feature. There is no question that it does all that the author of the paper advocates. It produces rapid anesthesia, and with a small amount of the drug. I do not remember the name of the inventor, but there is an inhaler on the market with a valve permitting the expired air to pass out and allowing fresh ether-charged air inspirations to take place. The question of the greater safety of chloroform being in its direct relation to its purity has been brought up to-night. I have seen something in recent literature regarding it. It is said that chloroform from chloral is less likely to be followed by disagreeable symptoms. Chloroform manufactured by Adrian, of Paris, is also said to be very pure. I have recently procured a specimen of it, and I will try it and see if it is better than Squibbs'.

DR. W. A. BRIGGS: I feel that ether is the safer anesthetic of the two. Recent statistics vary from those which have formerly been gathered, and show in the last few years, a mortality of 1 to 3,500 where ether had been used, and 1 to 1,500 with chloroform, approximately. Where both anesthetics are used, I think the general feeling amongst physicians is that ether is the safest. Of course, in some cases, chloroform is used in preference to ether, but where physicians use both, I think they decide in that way. The statistics, whatever they may be, are to the advantage of chloroform. It has recently been demonstrated, also, that deaths which have formerly been attributed to nephritis during the administration of ether, were not due to nephritis, and, probably, not to ether. As to the Ormsby inhaler, I confess I have had but very little trouble with carbonic poisoning. Not more than 25 or 50 per cent. of the air is reinhaled, and it seems to me that the objection, on that score, is not well grounded.

DR. THOS. ROSS: Both chloroform and ether have their appropriate places. I must say that I am opposed to the rapid administration of ether in the first stage of anesthesia, for when given too freely at first, before the mucous membranes of the respiratory tract become accustomed to it, it produces a sense of suffocation and an overwhelming feeling of impending death, which causes the patient to resist and to struggle with all his power. It should be given slowly at first, with a large proportion of atmospheric air, and as soon as the patient gets accustomed to it and shows signs of intoxication, then push it, giving the ether vapor as condensed as practicable. The use of chloroform and ether may be said to be sectional. In the United States ether is the anesthetic generally preferred. In Europe, Great Britain, and Canada, chloroform is generally used. I believe that in certain cases chloroform is superior to ether, and should be given the preference. In nephritis, pulmonary emphysema; bronchitis in the aged, in infants, and in obstetric practice, chloroform is preferable. Ether is to be preferred in the violently hysterical, in feeble or in fatty heart, in fat persons generally, in angina pectoris, in operations about the anus, and in operations done in a sitting posture. Regarding the comparative merits of the different inhalers, I have nothing of importance to offer.

DR. G. L. SIMMONS: I think the question of a choice of anesthetics rests with national custom, and I may say, prejudices. In Great Britain, where the anesthetic properties of chloroform were discovered by Simpson, about a year after the birth of ether anesthesia in Boston, chloroform is generally adopted, while on the continent and in New England, ether is preferred. In the western and southern States, the selection is plainly influenced by the impressions made upon the attending surgeon while studying for his degree. In my own practice I have used ether, and have seen but one case where I felt the patient was in danger from its administration. I have lived long enough to be a witness of the earlier experiments in anesthesia, having been a subject for a minor operation under ether before its success was publicly demonstrated by Surgeon Warren, in the Massachusetts General Hospital, and I have always claimed that no discovery of the century equals it in importance. My method of administration has usually been with the ordinary cone, but, for exactness, economy of ether, and good results, I always recommend the Ormsby inhaler.

Dr. A. M. Henderson: I took particular pains to observe the different methods of anesthesia used in Europe. Prof. Leopold, of Dresden, the most conservative surgeon I met, is an ardent advocate of ether, which he teaches to his assistants, and the large number of physicians who attend his clinics for post-graduate study. Many of these ask questions which would indicate that they had never seen it used. Aubrey, of Paris, uses ether, after having used chloroform for primary anesthesia. In Vienna, deaths following an anesthetic are generally attributed to a lymphatic diathesis. The most prominent pathological condition of this disease being the retention of the large thymus gland. Schlagenhaufer, of Vienna, assured me that such patients would as likely die from anesthesia with ether as chloroform. This condition is found in many persons who have died suddenly without other apparent cause. Assistants in the hospitals informed me that nephritis and pneumonia were not uncommon sequelæ of anesthesia with chloroform. Many varieties of complicated inhalers are used, especially in London, for administering ether; but I think the simpler inhalers which we use, are quite satisfactory when in the hands of one accustomed to administering anesthetics.

Dr. H. L. Nichols: As between chloroform and ether I will say that I have used chloroform from its first introduction as an anesthetic, and I have used it a great many times, in more than fifty years, and I have never seen any particularly bad effects from it. I have also used ether successfully, but my preference is chloroform.

Dr. L. A. Harcourt: Safety is the essential consideration. The person who devises a method by which an anesthetic may be given with absolute safety, will confer an inestimable blessing upon humanity. In my judgment, the giving of the anesthetic is the most important part of every operation, and the one who administers it is the most important person concerned in the operation. On him more than on any other one person the safety of the patient depends. The operator is free from responsibility, except that arising from his own acts. The anesthetizer should be a specialist, and should have at hand, ready for instant use, every facility and every known means for resuscitating the patient, in case of a syncope or failure of respiration. He should be prepared for every emergency, in trivial as well as grave operations. Through neglect of this precaution lives have been lost, and lives have been lost in spite of it, showing that the possibility of death should never be lost sight of. No amount of skill will make up for want of watchfulness and care. One case occurred in Chicago, where the late Chas T. Parkes, a distinguished operator, was about to do a trivial cosmetic operation on a girl's face, and she died on the table before he touched her with the knife. Others have died in dental chairs before a tooth could be extracted. If statistics are reliable, ether is the safer anesthetic, yet chloroform is preferable in many cases, and judgment should be exercised in the choice. With Esmarch's inhaler, very little chloroform is required, and its use is comparatively safe. For ether, I use Allis'. It is satisfactory except as to quantity, much ether being required.

Dr. H. D'Arcy Power: I have had practically no experience with ether; all my previous experience has been with chloroform. There may be something in what Dr. Wentworth says about anesthesia with ether. I have been afraid of it. I do not crowd it.

Dr. W. E. Briggs The author did not express any decided preference for either anesthetic. The fact that he brought out in regard to the rapid administration of both is very important. You get much more prompt results by beginning the administration of ether slowly and mixed with plenty of air.. The rapid administration of the concentrated vapor of ether causes reflex irritation of the mucous membranes and the sensation of choking, which are avoided by proceeding slowly. If one begins slowly at first, he will save both time and discomfort. When I am obliged to use a general anesthetic, which is much less frequent than before cocain was known, I make the anesthetist take the responsibility, as I feel that the operator needs all his attention to give to the operation in hand. On the ground of its superior safety, I prefer ether, and, administered with an Ormsby inhaler, with plenty of air in the beginning. the time required to bring the patient under its influence is no longer, if as long, as that needed with chloroform.

Regular Meeting, July 20, 1897.

The President, W. J. HANNA, M.D., in the Chair.

DR. W. A. BRIGGS read a paper on "Replacement of the Retroverted Uterus" [*vide* MEDICAL TIMES, vol xi, p 479].

DR. H. D'ARCY POWER inquired what advantage this method possessed over replacement, with the finger in the rectum, used in the same manner as the author had employed the Hodge pessary.

DR. BRIGGS said he had frequently attempted that procedure, and had found that his index finger was not long enough to carry the fundus forward within the grasp of the left hand.

DR. F. GUNDRUM said he introduced the pessary in the same manner as Dr. Briggs, but instead of using the finger he crowded the pessary back against the fundus, and found that it usually tumbled over. The abdominal wall recedes from the uterus upon the air rushing into the vagina as you open it. He had done this for many years, and seldom used any other method. If there were adhesions he broke them up with the finger.

Chronic Valvular Disease of the Heart and its Treatment.—DR. F. L. ATKINSON read a paper upon this subject. He said: In ancient and modern literature the human heart is often referred to as the seat of the emotions, and alternately praised and blamed for its exhibition of the various passions of mankind. In fact, however, it was only a muscular engine or force-pump containing cavities and valves arranged in an ingenious way and controlled by the central nervous system in a mysterious manner. Like all other parts of the human anatomy it is subject to a score of organic changes, not to mention functional derangements due to the condition of the blood and nervous system, as well as the various derangements of digestion. There are, primarily, three factors in the consideration of disease: (1) The condition of the part. (2) The condition of the blood. (3) The condition of the nervous system. He would endeavor to say something in regard to the first and most important of these factors, viz: the treatment of the results of valvular disease in its chronic form. There are certain measures in the treatment of valvular disease which are the same for the different orifices. The speaker said he would first consider the points which were common to these, referring especially to mitral and aortic valvular disease. Chronic valvular defects of both these orifices exist which give rise to no symptoms whatever, and which are generally discovered accidentally. It is generally conceded that such defects are irremediable, because treatment in the absence of symptoms is unnecessary. On the other hand, the discovery of such lesions enables the patient to pursue such a mode of life as will prevent harmful consequences. There is a second grade of involvement of either orifice which demands the same treatment, but in a more imperative manner, since the lesions result in the loss of compensation, which is manifested by dyspnea, palpitation, and precordial distress. The most common lesion of the mitral orifices is insufficiency—the blood flowing back into the left auricle during the systole of the ventricle at a time when communication between the cavities should be cut off. Nature, for a time, prevents injurious effects by a compensatory hypertrophy of the left auricle Engorgement of the lungs, however, soon results, though this may, for a time, be averted by the increased effort of the right ventricle which results in its hypertrophy. If this hypertrophy be maintained no symptoms may be developed, but the slightest suspension of these coöperative forces demands assistance. This assistance is rendered, in part, by rest, and is assisted by the various heart tonics. Preeminent amongst these is digitalis. It operates without doubt by increasing the force of the right ventricle and left auricle: it also helps to make the closure of the mitral orifice more complete by increasing the contractility of the left ventricle. The effect required depends upon the amount of obstruction to be overcome. In some cases steadying or supporting the heart's action is all that is necessary. Here moderate doses of the tincture—from 5 to 8 drops—two or three times a day is generally sufficient. He had, however, often met with cases in which it was necessary to administer much larger doses. In practice he was very fond of using a pill of Schieffelin & Co., which contained 6 drops of tincture of digitalis and 3 drops of tincture of strophanthus. The combination of the two drugs seemed to act well upon the heart, and avoided the bad effects of digitalis upon the stomach when given in large doses. He administered from 3 to 6 pills a day, according to the effect desired and obtained The same principle of treatment applies to the management of the more serious engorgement of the venous system following tricuspid insufficiency—the edema, which results, being relieved by purgatives. For this purpose those acting more especially upon the portal system were to be preferred, since it, of all others, was the one more especially involved. Physiologically, we should rely more especially on mercurial purgatives. Of these he used blue mass in preference to calomel, as being less irritating to the bowels; 5 or 10 grains given at bedtime, and followed in the morning by a saline cathartic, usually yielded satisfactory results. The best effects from digitalis were to be obtained by administering it intermittently; if given constantly it often disagreed with the stomach. Of all the preparations the infusion was often best borne, and had a great deal of testimony in its favor. It was necessary, however, to prepare it freshly, and for this reason the tincture was more available. Practically, the most effective heart tonic after digitalis was strophanthus. Frazer said, when he first published his investigations with reference to this drug, that it had the effect of digitalis on the ventricle, minus its contractile stimulus on the arterioles. The speaker, however, thought that this statement had not been borne out by experience. Caffein, spartein sulphate, and nitroglycerine all had their uses and advantages In mitral stenosis nature's forces are more efficient, and compensation is maintained longer than in regurgitation. Here we have hypertrophy of the left auricle along with the right ventricle, as in regurgitation, but without hypertrophy of the left ventricle. The pulmonary engorgement will be very great if we stimulate the right ventricle constantly. Heart tonics should be used here with great caution. In aortic valvular disease we have an increased systolic impulse. The heart thumps and bounds within the chest, and this is accompanied by the shot-like impulse of the carotids, which is a cause of great discomfort to the patient. With these symptoms it is not advisable to administer heart tonics, except in certain cases accompanied by marked palpitation, in which the tonic may act as a balance-wheel. Here heart sedatives play an important part Aconite, with bromide of potassium, belladonna, or hyoscyamus give great relief. Alcoholic stimulants are also very useful in the paroxysms. In the main, the speaker said he resorted to such remedies as would maintain the heart structure, as strychnine and iron and small doses of arsenic. Light nutritious food and personal hygiene should also be looked after. The dyspnea in cardiac disease is primarily the result of defective blood purification. The remedies, which have been already mentioned and which tend to relieve pulmonary congestion, in that way tend to relieve the dyspnea. The administration each evening of small doses of morphine, by the mouth or hypodermically, often insures a good night's r est. Dropsy, which was generally present as a complication of this disease, especially in old people, was hard to combat. The use of severe depletory measures was often out of the question; the only remaining course was to maintain the secretions and excretions in a healthy condition. The duration of these cases of deficiency was very varied and depended largely upon the conduct of the patient, his inherent vitality, and the strictness with which he followed the instructions of his medical adviser. Each patient has his peculiarities, and must be treated accordingly. Speaking generally, it may be said that these diseases are amongst the most unsatisfactory, from the standpoint of treatment, of any with which we come in contact. Nevertheless, there was much room for the exhibition of skill in their management and diagnosis.

Dr. F. Gundrum: The author did not go into the matter of hydro-therapeutics on the question of heart disease or valvular disease, which ranks as one of the foremost methods of treatment we have. In late years we are not depending so much on medicine in mitral or organic valvular disease of the heart as we used to. In Europe they have given up medical treatment to a large extent, and send them to Nanheim and other bacteriological or hydrotherapeutic institutions. Hygienic treatment should claim our attention more than the administration of medicine. We should give nourishing food, being careful not to overload the digestive organs. It is also very important to attend to the amount of liquids taken during the twenty-four hours. I have had a considerable experience myself as regards the administration of liquids on the general system, and especially on the action of the heart. I have, at different times, taken great quantities of water, and have observed the action on my circulation and heart under it. Upon ceasing to take such large quantities of water I found that I was almost a new being. My heart beat more slowly and firmer, and I could take more muscular exercise without getting out of breath. Digitalis is, no doubt, our best remedy to tone up the heart and give it strength and muscular power. I think that under the administration of digitalis, carefully seen to, in small doses, we not only tone up the heart but add to the muscular growth of it. The heart tonics give a great deal of help in these cases, and I believe next to these, if it does not sometimes occupy the first place, is blue mass. I read the history of a case in the *Lancet* last year where a man, suffering from mitral regurgitation, was given up by his physicians. He took 5 grs. of blue mass every night for over twenty years, after the doctor told him he could not live, and he is living yet, and has followed his occupation all that time. Exercise, especially as practised at Nanheim—the so-called resistance exercise—is of the greatest benefit in dilated, enlarged and weakened hearts.

DR. H. D'ARCY POWER: I feel that in every case of heart disease the power of the physician who knows his physiology and therapeutics is greater than in that of any other disease. As far as scientific medicine is concerned, the heart is the one organ in which it has made the greatest progress. We know all about the heart—its functions, its mechanism, and the methods of controlling it, to a greater extent than can be said of any other organ. We know, in the case of disease, what the mechanical derangements are, and to what results they will give rise. We have drugs which will shorten the length of the beat, we have drugs which will lengthen it, we have drugs which will increase intracardial pressure, and others which will diminish it. We can play upon the heart's action as we can upon a musical instrument. Digitalis, strophanthus, atropine, aconite and digitalis give us control over its action which is almost perfect. Such being the means at our command, the treatment of heart disease cannot lie along special lines of cure, but upon an accurate diagnosis and the application of physiological therapeutics. It is often more important to determine why, in a given case, the heart has failed to act, physiologically, than to think about drugs. In many cases the heart has been diseased for years, and it has done its work. Why, at this particular time, has it failed to do so? The answer will more often lie in causes outside the heart than in the organ itself. Many a business man with a cardiac lesion will go along doing his work and feeling nothing of his disease until business worry or other mental cause upsets compensation, and the symptoms of cardiac weakness will show themselves. In such a case it is more important to get your patient away from business worries than to administer digitalis. In other cases it is some extra muscular strain: change to a house on a hill, or an extra flight of stairs, and here absolute rest and the removal of the cause is more important than drugs. When these methods fail we resort to heart stimulants—strychnine or belladonna, strophanthus and digitalis, and it is well to remember that, in the case of digitalis, the main effect is produced by lengthening the period of the heart's rest, while strychnine acts upon its nutrition. Another important point in valvular disease is to determine whether a given case is of recent origin or a redevelopment of an old lesion. In such a case the prognosis must be entirely different. I would like to refer to the value of blood letting in cases where the venous system is engorged. It is well known how, in such cases, a hemoptysis or epistaxis will give relief. We can obtain the same effect by the withdrawal of eight or ten ounces of blood from the arm. In mitral stenosis this is particularly valuable. Reference has been made this evening to the use of morphine. While it is dangerous, and I have seen one or two cases prematurely ended by its use, I shall, nevertheless, continue to use it, for of two evils it is the lesser. Sweet spirits of nitre, again, is often invaluable in conditions where there is poor action of the kidneys. I would advocate the administration of the fluid extract of digitalis, or the infusion by the rectum, in cases where it disturbs the action of the stomach. Lastly, too much attention cannot be given to valvular disease in children. The prognosis in these cases is always serious, and is often made worse by the failure of physician and parents to exercise proper control over children in their play. These cases are nearly always associated with recurrent attacks of rheumatism, and the condition generally passes from bad to worse with each attack. The early administration of the salicylates, so as to absolutely control the arthritis, is of more importance than drugs directed to the action of the heart.

Dr. L. A. Harcourt: The majority of those lesions are in the left heart—that is, in the mitral or aortic valves, in both, or in the orifices guarded by them. They are either obstructive or regurgitant: obstructive from stenosis of orifice; regurgitant from valvular insufficiency. Whatever the lesion, the result is the same: over-repletion and increased blood-pressure on proximal, and ischemia and diminished tension on the distal side of lesion. This increases the heart's action, and gives rise first to dilatation and then to hypertrophy. The hypertrophy is the result of growth, of increased muscular action, may be either centric or concentric, and is always conservative. By increased pressure, it sends the usual current of blood through a narrowed orifice, or compensates for valvular insufficiency. While the hypertrophy equals the insufficiency, compensation is complete, the physiological equation is satisfied, and the patient safe. But there is a limit to muscular growth. When that is reached, compensation ceases and danger begins. Mitral obstruction, or regurgitation, causes dilatation of the left auricle, pulmonary obstruction, over-repletion of the right ventricle, and finally dilatation and enlargement of the right auricle. Obstruction of the systemic venous system follows, giving rise to enlargement of the left ventricle from over-distension. Aortic lesions give rise to similar results, only they have a different point of departure. Tricuspid and pulmonic lesions produce like results, though they are comparatively rare. Understanding the physiology of the heart, the mechanism of the circulation, and the pathology of valvular lesions, the line of treatment ought to be comparatively clear. Yet, judgment is required. Much good may be accomplished by judicious treatment, and, perhaps, more by judicious counsel. But a dilated cavity and a thinned and weakened muscular wall must not be mistaken for genuine hypertrophy. The one is destructive; the other conservative. The one requires treatment; the other care. The one is a menace to life; the other a protection. Careful stimulation would be a benefit in one condition, an injury in the other. And so of other treatment. Whatever equalizes the circulation enriches the blood, aids digestion, tones up the muscular system, improves the general health, secures moderate exercise, peaceful slumber and mental tranquillity, will lessen the burden of the heart, benefit the patient, and prolong life. This is about all we may hope to accomplish.

SAN FRANCISCO COUNTY MEDICAL SOCIETY.

Regular Meeting, July 13, 1897.

The President, F. B. Carpenter, M.D., in the Chair.

The Study of the Blood in Leprosy.—Dr. P. K. Brown read a paper upon this subject. He said: In the 16 cases studied with reference to changes in the blood, a condition quite analogous to primary tuberculosis was found. There was a remarkable absence of anemia, except in most advanced cases. There was not a single case of marked leucocytosis, and in only 1 case was there any increase in the number of leucocytes, above a point compatible with ordinary variations in health. In 2 cases only, was there a marked diminution in the number of erythrocytes, and in only 1 case could it be called a secondary anemia, of the severest grade. Five of the cases in which there has been no sign of active disease for a number of years, and 3 of which may be said, with reason, to be cured, present practically normal blood. The hemoglobin averages in the 5, who are all males, above 90 per cent. The erythrocytes are not diminished and the leucocytes are not only within normal range, in number, and also in kind, but none of them show degenerative changes. This corroborates Winiarski's study of 17 cases reported in the *St. Petersburger med. Wochenschr.* 1892, p. 365. Repeated but unsuccessful attempts were made to cultivate the organism on blood serum, agar gelatin, and in bouillon. The bacillus was found in the circulation of 9 of the cases in which it was sought for. Five of the remaining 9 were probably cured, and 3 represent the anesthetic or macular form, while 8 of the 9 cases in which the bacillus was found, were of the tubercular form. No bacilli of leprosy were found in the urine of 5 of the cases in which leprosy was in active progress. The presence of numerous lepra bacilli in a few of the leucocytes in the circulation leads to the supposition that they were taken up singly, in the circulation, and increased within the cell, which would go to prove that phagocytosis is not carried on alone on dead bacteria, as Pfeiffer would have us believe.

Dr. D. W. Montgomery exhibited a case of leprosy of which he briefly gave the history.

Dr. J. Rosenstirn: This case of Dr. Montgomery's was seen by me at my office about three weeks ago, the patient having come from Sacramento. The theory of phagocytosis is that the white corpuscles, acting as an army, meet the invading army of disease germs, and swallow them, and, if victorious, the disease is cured; if not, the patient dies. This theory has been disputed. Dr. Brown shows us that one of the leucocytes has a great number of the lepra bacilli within its body, and concludes that others originate in that body, but I must confess that I could not consider this view as proven by finding even forty similarly located. In experiments with cinnibar granules we find that the leucocytes can take up a great number, even as high as sixty. I do not say that the author is wrong, but I do doubt the fact that a number of bacilli in one leucocyte does not prove that they have been taken in whilst in a live state.

Dr. Montgomery: I look upon leprosy as the best type of cases in which to study a parasite of bacterial nature. The relation of cells is very plainly shown and little damage is done to them. As to the theory of phagocytosis, as Dr. Rosenstirn says, inert substances can be taken up by the leucocytes. It has been said that the bacteria we stain have a keratin-like envelope capable of dyeing. In several forms of leprosy, especially the erythematous, they are hard to find. I thought the discovery of bacteria floating free in the blood was new, but Dr. Brown says not. It is remarkable that they flow through the kidneys and do no damage. They seem to select certain tissues, especially the eyebrows, but not the scalp.

Dr. P. W. Nathan: It is the consensus of opinion that a leucocyte cannot pick up bacteria unless they are dead; it being a process of digestion, the action is such that if the bacteria remained long alive either one or the other must die, they are so antagonistic. There is no reason why a leucocyte cannot take up at least forty or fifty bacilli.

Dr. C. E. Farnum inquired if the bacilli could be found in purulent matter expectorated from a mediastinal abscess? It seemed to him that if not found in the pus globule we have but little to guide us in such an examination unless the blood be examined.

Dr. S. J. Hunkin: I have often remarked how readily the skin and tissues of some leprosy cases heal, especially in the tubercular form. I saw a case in the City and County Hospital, where the patient accidentally put his feet and legs into very hot water and left a complete cast of the skin in the water. His condition was so bad that amputation was discussed, but the healing process soon began, and in six weeks the man was as well as ever.

Dr. W. I. Terry: I saw this patient in Sacramento four years ago. The tubercles were then more numerous, but are larger now. At that time she had a certificate from Dr. Hirschfelder, stating that she did not have leprosy, as she had been examined here before going to Sacramento.

Dr. Brown, in replying to Dr. Farnum, said: The lepra bacillus did not cause abscesses; the presence of organisms in the blood may be due to their having been carried into it from infected tissue, by a vein. There is no record of an increase in the leucocytes being caused, as is invariably the rule in suppurative processes. There is no authentic record of the successful cultivation of the lepra bacillus. Drs. Jellinek, Nathan, and myself have tried it several times, in all the different media. As to phagocytosis, there must be some toxine producing element in the blood that we have not yet found.

DR. J. F. MCCONE read a paper entitled "Oöphorectomy with Pregnancy."

DR. H. KREUTZMANN: In 1892 I operated upon two such cases. Both patients went to full term, and, it is strange to say, both cases were delivered before I arrived at the house. My cases were of one side only, whereas, in Dr. McCone's case, both sides were involved, and there was a cystic mole of the uterus. In such cases diagnosis is very difficult. I should not hesitate to operate. I object to the terms used. Oöphorectomy is the cutting out of an ovary, and ovariotomy is the cutting into an ovary. A better term would be cystectomy.

CALIFORNIA ACADEMY OF MEDICINE.

Regular Meeting, July 17, 1897.

D. W. MONTGOMERY, M.D., in the Chair.

Carcinomatous Ulceration of Tongue.—DR. D. W. MONTGOMERY presented a case of carcinomatous ulceration of the tongue. He called particular attention to the edges of one ulcer, and the evidence of epithelial grouping beyond the periphery of the sore.

DR. HARRY M. SHERMAN exhibited a series of cases.

Case 1.—Hoffa's Operation.—This case was that of a boy of five, where the Hoffa operation had been performed for congenital dislocation of the hips. The trochanters are slightly above Nélaton's line, but the boy presents normal contour. The child has been out of plaster a few days, and can already get around with comfort and considerable grace. *Case 2.—Talipes Varus.*—The plaster was taken off yesterday, and the immediate result of treatment demonstrated. The apparatus for retaining foot in normal position was shown. *Case 3.—Spina Bifida Occulta.*—In this case the diagnosis was indicated by the secondary deformities; the gradually developing talipes, the perforating ulcer, etc. The right foot and leg was mottled and sensation was somewhat impaired. A small opening was located over the second sacral vertebra. The child first noticed the development of club foot. This was treated with but temporary success. The perforating ulcer then developed. A similar history caused by spina bifida caused the speaker to make a careful examination of the spine, which resulted in finding the developmental error in the sacral vertebra. The treatment in this case has been using a brace modeled after one of Hessing's. The prognosis, of course, is not cheerful.

Possible Syphilitic Ulceration following Trauma.—DR. H. B. A. KUGELER reported the following case: Patient, man, age 28, employed in a box factory. In July, 1896, was struck in the right groin with a railroad truck. A swelling appeared and broke down, leaving a nasty ulcer. This was curetted thoroughly and did well for three days, then it became angry and refused to heal. Specific treatment, mercury biniodide was used for a while. On March 5th patient had soreness of the glands, and was circumcised. The ulcer in the groin healed at once, but the line of circumcision did not heal, and is now a deep ulcer with indurated edges, extending about the penis. The question comes up, What is the nature of the illness? Syphilis is, of course, first thought of. I have used potassium iodide and blue ointment, have applied every stimulant in the dispensary, and still this ulcer shows no tendency to heal.

The general opinion of the members present was in favor of the ulcer being syphilitic, and massive injections of calomel in gray oil were advised. Strong antiseptic dressings were interdicted, a section of the indurated edge with a report of the results will come up at the next meeting.

Sarcoma of Testicle.—DR. DUDLEY TAIT exhibited a specimen of sarcomatous testicle. The patient, 26 years of age, gave a history that would exclude syphilis, and to a great extent tuberculosis. Had had gonorrhea for 10 months, and on April 10th, after a urethral injection. he had violent pain in the scrotal region. The testicle was enlarged and epidermis not involved. The pain subsided in a few days and the tumor continued to increase in size. A puncture two months ago brought blood and serum, but no bacteriological examination was made of the fluid. The tumor at date of operation was the size of a goose egg, smooth, and of almost uniform resistance. Pressure elicited no pain, and the chord and seminal vesicles were not involved. There was no glandular involvement, no dragging pain, and no enlargement of the superficial veins

DR. D. W. MONTGOMERY: Syphilis, tuberculosis, etc., are shut out in this case. The testicle is frequently the seat of the occurrence of embryological rests, and these give rise to the cysts, sarcomata, etc. The prognosis depends on when the embrylocal rest takes place. If it be before the development of the allantois, the growth is more rapid and the disease more grave; after the development of the allantois the rests are of less grave significance.

SAN FRANCISCO MEDICO-CHIRURGICAL SOCIETY.

Regular Meeting, August 2, 1897.

G. F. HANSON, M.D., in the Chair.

Notes on the Early History of Prostitution on the Peninsula of San Francisco.—DR. C. F. GRIFFIN read a paper upon this subject. He said: San Francisco's prostitution is older than herself. At the time when we have the first written records, there were many Indian tribes surrounding San Francisco Bay, and upon the ground where now stands this city, there were the Ahwashtees, in whom our interest mainly centers; while extending southward along the coast as far as where Monterey is now located, were the Ohlones, Altahmos, Romanous, and many other tribes. Almost all traces of the old Indian rancheria, located where now Beach street crosses Hyde, have completely disappeared. Prostitution, in the sense in which we use the term, was probably unknown among the Indians, before the advent of the white races. No word in their language conveyed the meaning mercenary prostitution. The Goyas were male Indians with which nearly all the tribes were infested. They were passive pederasts. Most of the tribes in the region of Central California had but two or three each. These Indians began early in life to practise their occupation. They were dressed in the manner of the women and had the privileges of women (exemption from war duty and from hunting). They associated with the women, performed the camp drudgery in common with the women, and were despised by the whole tribe. It is a tradition that the great chief, Marin, after whom Marin county is named, was a descendant of a Spanish sailor, who, being cast ashore in a storm, was treated kindly by the natives, and subsequently took unto himself a wife and lived among the Indians. The two settlements of the Mission Dolores and of the Presidio, were about two miles distant from each other, the intervening territory being formed of high sand hills and shallow ravines, along and over which passed, through a tangled forest of chapparal, a road connecting them. On the spot where is now located the plaza, there grew, about seventy years ago, in insolent pride, a crop of Irish potatoes. San Francisco grew up around this potato patch. Find a colony of thieves, and a colony of prostitutes will be found not far distant. To San Diego and to the year 1829 belong the dubious honor of instituting the first house of ill-fame in California. In San Francisco it was not until the year 1849 that the first house of this character was established, although clandestine prostitution existed on the peninsula long previous to that time. The first houses were located on Dupont street, near Washington, and on Waverly Place —both of which places were very near each other, and very near the thieves' colony on "The Coast," and in the very heart of the little city. From this center, as the years passed by, has grown, in an ever expanding area, the realm of the public prostitution house; and to-day, the one primal house has multiplied into hundreds, and the one primal prostitute into over two and a half thousands.

DR. L. C. LANE: The story of the potato patch recalls to mind a pitiful story of early days, and the dearth of necessities in those times. The ground where now stands the Bella Union Theater, was, in the stress of need, given by a poor woman in exchange for a bottle of wine, with which to aid her sick child in its struggle back to health. As to chastity among the Indians, I believe it is established that in the primal state, they uphold in their own way, our ideas of morality. Among the Crows and Blackfeet tribes, chastity is highly regarded. The Blackfoot mother, at night, ties her unmarried daughter's feet together with a band, or even a small string. In the morning she removes it. For any one else to cut that string means death. The Indian languages ought to be studied. They are fast passing away. A famous linguist at Halle once said to me: "You people of America are losing one of the most interesting things that a people can have. The Indian languages would unlock many of the secrets of ancient history. The word "hurricane" is a pure Chippewa word, adopted now into all languages."

SPECIAL CORRESPONDENCE.

MOSCOW.

The Twelfth Internationat Medical Congress.

This Congress was held at Moscow, Russia, and lasted from August 19th to the 26th. There were between 5,000 and 6,000 in attendance on the Medical Sections, and a large number also for the Dental, Pharmaceutical, and other allied Sections.

The arrangements were admirable and the Russian physicians are deserving of much credit for the attention to detail, and for the care and courtesy which they bestowed upon their visitors. Members of the Reception Committee met all incoming trains and directed delegates to their lodgings. This committee also acted as guides during the Congress.

The registration bureau, the post-office, restaurant and rendezvous for the different Sections, were placed together in a large building with central location, while the sittings of the sessions were held in the University and other suitable buildings throughout the city. The languages used at the sessions were French, German, and English.

The opening session was a splendid affair, and was held in the Grand Theater —a magnificent building, seating about 3,000. It was held in the presence of the Grand Duke Alexander Sergius. The programme was as follows:

1. Opening address by the President of the Organization Committee, Prof. U. B. Slifosowsky.
2. Report of the General Secretary, Prof. N. K. Roth.
3. Reports of National Committees and Governmental Delegates.
4. Election of Officers.
5. Papers: "The Role of the Bloodvessels in Inflammation," Prof. R. von Virchow.
6. "The Relations between Physiology, Pharmacology, Pathology, and Practical Medicine." Prof. Lauder-Brunton.
7. "The Surgical Treatment of Tubercular Affections," Prof. Lannelougue.

The general sessions of the Congress were interspersed, as usual, with entertainments—concerts, receptions, banquets, balls, and excursions, and the twelfth Congress will take rank as one of the most successful of all those held up to the present time.

There were several hundred American delegates, including a few from California. The place of the next meeting will probably be Paris.

Moscow, August 22, 1897. C. E. Cooper.

GERMANY.

[From our own Correspondent.]

The Berlin Congress for Internal Medicine.—Lumbar Paracentesis.—Tuberculinum Redivivum.—The Plague Commission.—A Deplorable Duel.—A New Method of Suturing Wounds.—Gloves in Surgical Operations.

The fifteenth Congress for Internal Medicine at Berlin was unquestionably the most important event that has occurred during the last few months in the *mode médical* here. Quite the most interesting part of it was the passage of arms between the advocates of bacteriological antitoxine therapeutics and the adherents of the ancient medicinal treatment of diseases, the first pitched battle between the two armies. It was "*à Behring*, *à Behring*" on the one side, while Liebreich was the leader and standard-bearer for drug therapy. The latter's address was entitled "The Aims of Modern Drug Treatment," while Behring opened fire with a paper under the heading "On Etiological Therapeutics." It cannot be denied that both combatants fought ably and with great enthusiasm, and the audience applauded each in his turn. Both, however, would seem to go much further in their theories than medical men in general are as yet disposed to follow. Thus Behring encountered pronounced opposition when he very precisely declared that he considered it a vain endeavor to attempt the preparation of an antitoxine as a chemical body—the thing known as such being not an object, but a power, something like magnetism in iron. And Liebreich found but little favor when he ventured to express his doubts whether Koch's bacillus of tubercle really is the potent factor in this disease.

The other subjects under discussion were chronic arthritic rheumatism, epilepsy, and Graves' disease, but all of these subjects, as well as Professor Benedict's paper on skiography, although exceedingly interesting to many, did not cause as much general excitement as the above-mentioned contest. A pretty lively discussion, however, ensued on the question of lumbar paracentesis, as first employed by Professor Quincke, of Kiel. The consensus of opinions decidedly tended to testify to its eminent diagnostic and also therapeutic value, and numerous other publications, besides the papers read on this occasion, show that it is gradually coming to be pretty generally accepted as useful and applicable. The *technique* is not difficult to master, a thoroughly clear understanding of the anatomy of the lumbar region and of the vertebral column being the prime *desideratum*. Under due antiseptic precautions a fine cannula is thrust between the lower lumbar bones into the terminal part of the spinal canal, the object in view being achieved when the cerebro-spinal fluid begins to flow. As the spinal cord practically terminates at about the second lumbar vertebra, and the *cauda equina* is freely movable in the suspending fluid, there is little risk of doing damage. An anesthetic is not even necessary except, perhaps, with very unruly or nervous patients. In course of time quite a respectable number of cases have been reported. Naturally the method is chiefly applicable in cases of meningitis, either tuberculous or otherwise. One of the most striking effects is the prompt improvement thus frequently produced on the convulsions and the stupor, especially in cases with profuse serous exudations. The removal of about one ounce or an ounce and a half of cerebro-spinal fluid has repeatedly proved highly beneficial, and even cases in which tubercle bacilli have been found in the fluid have improved, and even recovered. Lenhartz, of Hamburg, has treated 7 cases of chlorosis in this manner, in the first place on account of intense and persistent headache; and he has observed quite undeniable amelioration of all symptoms. In cases in which the diagnosis lies between purulent meningitis and operable abscess of the brain the diagnostic value of the method will frequently prove simply inestimable.

Cool reserve, on the other hand, was the attitude of the Congress towards the new tuberculin of Professor Koch, and throughout the land this Tuberculin R., as it is named in distinction to the old tuberculin, has met with no very fervid reception. This is not to be wondered at, considering the amount of disappointment produced by the original publications, though this was, be it remembered, by no means entirely the fault of the discoverer. At Berlin, the few remarks made on the subject were couched in very guarded language, and Dr. Langerhaus even took occasion to give an express warning against the preparation, presenting specimens from a patient who had died of acute miliary tuberculosis after having been subjected to a course of the treatment. Since then, too, a comparatively small number, only, of cases treated, has been reported. Lupus, however, would seem to be favorably acted upon, but all observers are unanimous in considering the time of observation far too limited as yet for any definite conclusions. At the last meeting of the Berlin Dermatological Society, Prof. Lassar showed 5 cases of this disease that had undergone injection, and a few similar publications have appeared in the medical journals, all with some improvement. It should not, however, be omitted, that occasionally very unpleasant effects on the general health have been observed, high fever, prostration, malaise, racking pains, and similar symptoms of a severe disturbance in the constitution. Besides, the high price is a great drawback, each injection costing m. 8.50 ($2.25); as the dose has gradually to be increased and the treatment continued for several weeks in order to obtain any palpable results, the affair is somewhat too costly to allow it to become rapidly popular, even with more pronounced results than have hitherto been obtained. The firm intrusted with the manufacture of the remedy, the Farbwerke, at Hochst on the Main, no doubt consider themselves justified in demanding a high price, in consideration of the great dangers attendant on the process, which consists principally in powdering pure dried cultures of the bacilli in a mortar and subsequently preparing an extract with glycerine. Professor Hans Buckner, of Munich, has been working on similar lines, independently of Koch, but has preferred to withhold more than a preliminary communication on his experiments until they may have developed into a more reliable stage. But he also professes faith in the correctness of these theories, and at any rate it is to the advantage of science in general to have the question as thoroughly sifted as possible by competent men.

The Imperial Board of Health held a festive meeting a few days ago in honor of the Commissioners for the investigation of the Plague, recently returned from India. Koch, who was also at Bombay, is at present in East Africa, whither he has returned to continue his researches on cattle plague or Rinderpest, but interesting papers were read by Professor Daffky, Pfeiffer, Sticker, and Diendonné. Home Secretary Count Posadowsky was present, and warmly eulogized the work done. In consideration of the lively mercantile intercourse between Germany and India it was, he said, a matter of great importance to obtain as much information as possible on the etiology, the clinical symptoms, treatment, and prophylaxis of the disorder, and the Commissioners had done not only a brave, but also a highly useful deed, in thus exposing themselves to the dangers of a terrible disease. As to the report, or rather series of reports published on the investigations made, they are too voluminous to allow of any condensed survey. Be it, therefore, merely mentioned that the stronger antitoxine of Dr. Yersin seems to yield better results than the original weaker preparation, so that possibly an effective remedy may eventually be found.

A very deplorable encounter recently occurred at Bonn, between two surgeons engaged as assistants at the clinic of the University there. It appears that the two did not agree very well, and that one tried to lower the other in the opinion of their chief. Matters gradually reached a climax, resulting, finally, in direct insults, horse-whipping, pistols, and the immediate death of one of the combatants. This is the natural outcome of the code of honor in the German army, as all medical men who have served their time and become members of the sanitary corps, be they in active service or belonging, as these did, to the reserve forces, have the status of officers, and as such are morally compelled to fight duels if the Code of Honor sees cause. Should they refuse, they are dismissed in disgrace, as any other officer would be. It cannot be denied that in this way, those men who are the immediate retainers of the King, and in a certain manner his comrades, are induced to be the first to break the very laws he has framed and ratified.

Dr. Wachsmann, of Berlin, has invented a handy little device for suturing wounds. It consists simply of nickel plated steel needles without an eye and pointed at both ends, the ends being bent down at an angle of 45°. They are easily applied by slightly pressing the points into the skin at each side of the wound, the center of the instrument being grasped with forceps while the edges of the wound are correctly adjusted. In this manner suturing is very easily and rapidly effected, and disinfection can be thoroughly effected by boiling the needles before and after use. Dr. Wachsmann believes the method will be found convenient and time-saving, especially in times of warfare.

All operators are agreed that the surgeon's hand is a much more potent source of infection in handling wounds than anything else, and numberless methods for rendering the skin really aseptic have been recommended. Fürbringer's plan with alcohol (50 per cent.) and corrosive sublimate, seems to be about the best, but even this has been found to fail. In consequence, a number of surgeons now have recourse to putting on sterilized gloves when operating. One author uses gutta percha ones; in the Leipzig clinic silk gloves are used, and Mikulicz, of Breslau, employs ordinary white cotton ones. The sense of touch is really not materially impaired, and in some operations, when slippery objects have to be handled, even a much firmer hold is obtained.

August 7, 1897.

CORRESPONDENCE.

The Woodbridge Treatment of Typhoid Fever.

Sir: My attention has just been called to the publication in your issue of July, 1897, of a report of the proceedings of the Sacramento Society for Medical Improvement, in which you give an abstract of a paper on the treatment of typhoid fever by Dr. W. F. Wiard, and the discussion thereon, in which my name is bandied from tongue to tongue with the utmost freedom, and the method of treatment of typhoid fever which I have advised is criticised by persons who have never "used" it, and are consequently totally ignorant of its powers or limitations, its advantages or its deficiencies. Will you, therefore, grant me space for a few corrections. The following quotations are from Dr. Wiard's paper:

"He began at the outset of the attack to administer the tablets advised by Dr. J. E. Woodbridge, known as Formula No 1, giving them every 15 minutes for 48 hours, and paying little attention to nutrition. There was no objection to arousing the patient from sleep for the purpose of administering the medicine. * * * He did not now regard a temperature of 105° F. in any stage of typhoid fever, without complications, as cause for special anxiety. He believed it called for the administration of the best antiseptic obtainable—preferable, the Woodbridge Formula No. 1, given every 15 minutes, regardless of other conditions present. * * * There have now been too many cases aborted in the early stage to longer deny the power of medicine to accomplish this desirable end. Again, the harmlessness of the Woodbridge formula recommended its employment in cases of questionable character where there was a possibility of error in diagnosis. If not given until later in the disease he would not expect it to abort the attack, but he would look for it to ameliorate the conditions and to establish convalescence from one to two weeks earlier than could be brought about by any other means of treatment. He confidently believed that under this method, intelligently applied, intestinal hemorrhage would be exceedingly rare; that perforation of the intestines would also be of rare occurrence; that involvement of the lung would be a novelty, and death from typhoid fever only a possibility." In January, 1895, the essayist, Dr. Wiard, a member of the California State Board of Health, wrote to me about the method which he has advocated; he has, therefore, had at least two years practical knowledge of it. Every physician who has had large experience in the scientific application of the method under consideration will pronounce Dr. Wiard's language to be conservative and his position unassailable. Yet the carping critic who has never tried the "Woodbridge treatment," and is consequently incapable of discussing it intelligently, was as usual ready to place the deductions of his unaided intellect above the bedside experience of Dr. Wiard and hundreds of other physicians who are all quite as capable of reasoning correctly as himself, and with their reasoning powers supplemented by careful clinical studies. Among Dr. Wiard's critics, all of whom say, or show, that they have had no experience with the method he advises, there is one who objects to giving medicine every 15 minutes, as it allows the patient no time to rest, but Dr. Wiard, and a great many other physicians, speaking from observation of large number of cases, say that this is not an objection. On the other hand, a few of the many physicians who have tried the method do object to the frequent dosage, but regard the brilliant results obtained by it as a full equivalent for any inconvenience the application may have caused, inasmuch as it is better to disturb the patient a little during the first 24 or 48 hours (the longest period during which it is ever necessary to administer the medicine so frequently, and that at a time when rest is generally impossible), and by so doing reduce what would otherwise be an average of six weeks of severe illness, with high fever, delirium, ulceration of bowels, emaciation, and great mental and bodily weakness, with all of the dangers of grave complications and sequelæ, and a death rate of from 15 to 20 per cent., to less than 13 days of mild illness, with no delirium, little fever and emaciation, almost perfect vigor of mind and body, and no grave complications or sequelæ, and a death rate of less than 2 per cent. It is, however, not always necessary to pursue the heroic course, which alone will abort the disease in its most refractory form, and as "half a loaf is better than no bread at all," it is better to give the remedies in larger doses and at longer intervals, and thus ameliorate in some degree the severity of the disease, than not to give the treatment at all. The objections to the method that no provision is made to reduce temperature or control the diarrhea, are groundless, because, if the treatment is scientifically applied, the temperature will not need to be reduced, and so far from there being any necessity of controlling diarrhea, the difficulty will always be to keep the bowels sufficiently active. The critic who is unable to see that the claims made for the "Woodbridge treatment, are justified either by theory or by results," must have failed to understand the former, and to appreciate the volume or significance of the latter. Three days after Dr. Wiard's paper was read, I presented to the Ohio State Medical Society a report covering every case of typhoid fever which had been reported as having been treated by the method under consideration, as well as the deaths which had occurred under it. Up to that date (May 21, 1897), there had been then reported 5,449 cases treated, with 105 deaths, or a death rate of 1.92 per cent Since that date more than 400 letters reporting 3,498 cases and 58 deaths have been received, so that there have been reported up to the present time 8,857 cases treated, with 163 deaths, a death rate of 1.84 per cent., and a duration of illness in the 5,519 cases in which it was given o 12.7 days. It is true that the statistics do not on their face justify the theory that death, or protracted and severe illness, are wholly unnecessary consequences of typhoid fever, but this theory was enunciated on the premise that the treatment be properly applied from the very *onset* of the disease, while among the fatal cases reported here, are included a large number in which the observer was not called until the patient was moribund. Thirteen of the deaths having occurred within 48 hours of the commencement of treatment, and the death rate is still further increased by the inclusion of cases in which the patients had been kept on other methods of treatment until death was seen approaching, when a change has been hastily made to what the attending physician has designated "the Woodbridge treatment," with the result that, although large numbers of such cases recover, enough die to greatly and unjustly augment the death rate. Then, too, many physicians institute what they suppose to be the "Woodbridge treatment," without having taken the precaution to acquire the most authentic (or necessary) information to enable them to correctly apply so intricate and difficult a method, and strange to say a majority of the adverse critics belong to this class, if, indeed, they have not reported a majority of the deaths. When the difficulty of obtaining statistics on any new method of treating disease is considered, and when it is remembered that the method under discussion contravenes all preconceived notions on the subject, and is in direct conflict with the teaching of every medical college in the world, the magnitude of the figures may be realized. The question of possible errors of diagnosis in connection with these reports is a most important one, for upon their elimination depends the value of the statistics. Absolute exactness is, of course, impossible, but when it is remembered that no question as to the correctness of diagnosis of the fatal cases is ever raised, and that the venerable Alonzo Clark's advice, "If you succeed in curing a fever which you have diagnosed as typhoid, be sure you have made a mistake in diagnosis," is still an accepted method of correcting supposed errors of diagnosis, it will be apparent that these statistics probably suffer much more than they profit by errors of this sort—a probability which a careful scrutiny of the reports will convert into a certainty, since they will show that these observers, knowing that their clinical charts and reports of cases would be carefully examined and sharply criticised, have taken any possible precaution to fortify their positions by calling eminent counsel to verify their diagnosis by resorting to every means known to science to exclude errors, by reporting such cases only as presented absolutely pathognomonic symptoms of typhoid fever, and then in some instances at least excluding large numbers which they were satisfied were typhoid. The question of diagnosis would never have been opened had it not been for the conviction so firmly established that the jugulation of typhoid fever is impossible. A delusion upon which many a fallacious argument has been formulated—arguments which have been confuted at the bedside every day since the abortive treatment for the disease came into use—a fact that has been fully and unequivocably stated by those who speak from practical experience. If the statistics given above do not carry conviction of the value of the "Woodbridge treatment," the reader is respectfully referred to reports already published, and to the forthcoming volume of the Transactions of the Ohio State Medical Society. If he be not then convinced, he is invited to visit my study and examine the accumulated, and rapidly accumulating, mass of charts, clinical histories, reports of cases, and the highly commendatory letters—many of them so complimentary to the method of treatment under consideration, and to the author, that the dictates of modesty forbid their publication. Statistics may be so manipulated as to convey fictitious meanings, but the outspoken declarations of physicians detailing their experience at the bedside, can neither be falsified nor misconstrued, and they constitute the verdict, the purport of which can never be misunderstood. I am, etc., JOHN ELIOT WOODBRIDGE.

CLEVELAND, Ohio.

OBITUARY.

H. A. DU BOIS, M.D.

DR. HENRY AUGUSTUS DUBOIS was born in New Haven, Conn., on June 26, 1840. His father was a prominent physician in New York, and also his brother Robert. Another brother has been for years Professor of Dynamic and Civil Engineering in Yale College. The doctor was a descendent from the Jay family, prominent during revolutionary times, being a great-grandson of John Jay, Chief Justice of the United States during those times. His early education was received in the public and private schools of New York, and in 1857 he entered the Philosophical Department of Yale College, and also took a course in analytical chemistry. He graduated from this institution in July, 1859, and entered the College of Physicians and Surgeons of New York, studying in the office of Dr. G. Buck, and also attended lectures at the Long Island Medical College, in 1861. In 1861 he joined the Twelfth Regiment, New York State militia, three months before graduating from the Medical College, and filled the position of Hospital Steward, but was soon promoted to be Acting Assistant Surgeon of the Twelfth. In August, 1861, he received his commission as Assistant Surgeon of the United States army, having received his degree of Doctor of Medicine previously, from Yale College, and was stationed for ten months at Washington city, when he entered the Sixth U. S. Cavalry, and was in the battle of Hanover Court House. He was then placed in charge of the hospitals at Burkelsville, Md., a few miles from Frederick, where, in 1862, he had several Brigadier and Division Surgeons placed under him. Next he had charge of the Frederick Hospital, No. 4. and afterwards was transferred on the field to the reserved artillery, serving in the battle of Chancellorville. In 1863, he was present at the battle of Gettysburg, where he found and removed his brother Cornelius, who had been badly wounded in that battle. In 1864, he was made Medical Inspector of the artillery reserve of the Army of the Potomac, and organized an ambulance corps in the battle of the Wilderness. In 1864 (May), he was made Inspector of Hospitals at the headquarters of the Army of the Potomac, under Generals Grant and Meade. In June, 1864, he went on Gen. Sheridan's staff in the cavalry corps, and in August was appointed Assistant Medical Director of the Middle Military Department of Virginia, on Gen. Sheridan's staff, and was present at the surrender of Gen. Lee, and was made Major by brevet, to date from March 23, 1864. In May, 1865, he was appointed to the U. S. Laboratory, in Philadelphia. In May, 1866, he was sent on duty to Fort Union, New Mexico. In July, 1867, he obtained leave of absence for six months, and in October went to Europe, where he continued his studies. In February, 1868, he resigned his position in the U. S. Army, and returned home on March 30, having been six years and eight months in the regular army. He practised for a short time in the city of New York, and afterwards in Minnesota, but the climate not agreeing with him, in 1869 he settled in San Rafael, Cal., where he went into partnership with Dr. A. W. Taliaferro. In

1872 he dissolved partnership with Dr. Taliaferro, built himself a substantial residence, and established a large and ornamental cemetery at great cost, called Mt. Tamalpais Cemetery, and of which he was the controller and owner at the time of his death. On December 1, 1880, he married Emily Blois, only daughter of the late Samuel Blois, M.D., of New York. He leaves a widow and five children, 3 girls and 2 boys. The doctor was a well-read man, keeping up with the times and kept himself well supplied with books and apparatus. He died at his home in San Rafael, on May 26, 1897, at the age of 56 years and 11 months, after a brief illness of nine days. The cause of his death was a savage attack of typhoid fever, probably contracted while attending his children, two of whom were convalescing from the disease when he was taken ill. He was not a strong man, and the force of the disease quickly wore out an already overburdened heart. He was a skillful physician, a good husband and father, and will be much missed by the community in which he lived and practised for so many years. W. F. J.

REVIEWS AND NOTICES.

THE SURGERY OF THE HEAD AND NECK. By Levi Cooper Lane, A.M., M.D., (Berol) M. R. C. S. Eng., L.L.D., Professor of Surgery, Cooper Medical College, San Francisco. Published and for sale by the author. Price, $5.50; pp. 1179.

This work comprises a volume of nearly twelve hundred closely printed pages. In this age of encyclopedias and many volumed systems and treatises by many authors, it is pleasant to meet a book written by an accredited authority, with a definite object in view. Few writers have been so fortunate in the selection of a subject. For many years the original work done by Professor Lane along the lines followed in this volume have been generally recognized, and the profession at large will unite with his many friends in according to the work the place which it clearly merits. As a practical treatise for the use of students and operators it should find a place in every library. The wonderful familiarity of the author with the bibliography of his subject, both ancient and modern, is clearly apparent. In fact, the historical feature of the work renders it specially attractive. Of the thirty-five chapters which compose the volume, two stand preëminent in point of interest and value. The first is that which deals with affections of the tongue. This will be referred to most frequently by those interested in excision of the tongue for malignant disease. The description of this operation, as done by the author, is a model of clearness and precision. The second chapter referred to is that which treats of affections of the thyroid, especially the various conditions grouped under the general term, goitre. It is hardly possible to overrate the value of the evidence herein contained. As a preface to his formal description of the operation for enucleation, there is furnished a brief but graphic account of the author's first effort in this direction in 1859—an excellent exposé of the enormous difficulties encountered by surgeons before the days of efficient hemostatic forceps. In an introductory paragraph, Professor Lane says: "The medical writer of to-day, warned by the fortune of his contemporaries, may prudently contract the horizon of his expectation, and reckon on but a brief life for his book." In view of the fact that this volume occupies, from an historical and bibliographical standpoint, a broader field than the average text-book, it is fair to assume that it will be placed where it belongs among the classics of surgical literature.

EYE-STRAIN IN HEALTH AND DISEASE; WITH SPECIAL REFERENCE TO THE AMELIORATION OR CURE OF CHRONIC NERVOUS DERANGEMENTS WITHOUT THE AID OF DRUGS. By Ambrose L. Ranney, A.M, M.D., late Professor of Nervous Diseases in the Medical Department of the University of Vermont, and of the Anatomy of the Nervous System in the New York Post-Graduate Medical School, etc. Illustrated with 38 wood-cuts. One volume, royal octavo. Philadelphia: The F. A. Davis Co.; pp viii–321. Extra cloth, beveled edges, $2.00.

This work should be well received by the profession as being the views of one of the enthusiasts in this field of medicine. Not many years ago the profession would have scoffed at the statements made by the author which to-day receive a respectful hearing and which have many believers. The subject treated, rather fortunately, by a neurologist instead of by an oculist, as the latter have been accused frequently of placing too much importance upon the influence that eye-strain has upon the general health. The following subjects are the titles to the different chapters: The bearings of eye-strain upon the duration of human life; The test of vision and ocular movements; Eye-strain as a cause of headache and neuralgia; The eye-treatment of St. Vitus dance (chorea); Sleeplessness, some facts relating to its cause and cure; Eye-strain as a cause of chronic gastric and digestive disturbances; The eye-treatment of epileptics; The eye-treatment of nervous prostration and insanity; The surgical treatment of anomalies of the ocular muscles (heterophoria); Eye-strain as a cause of abnormal eye conditions. One can readily see that the range of subjects discussed is broad enough to satisfy the most earnest enthusiast, but most conservative men will require more evidence than the author advances to convince them of the soundness of all of his premises. The subjects under discussion are bound to receive much attention during the coming years from progressive medical men, and it is the duty of every practitioner to learn what is known of the important and difficult questions. A study of Dr. Ranney's work will render great assistance in understanding this intricate subject.

MEDICAL NEWS.

LICENTIATES OF THE BOARD OF EXAMINERS.

At a meeting of the Board of Examiners, held August 16, 1897, the following were granted certificates to practise medicine in this State:

Foster W. Bassett, Los Angeles; Chicago Med. Co., Ill , Mar. 26,'89.
Wm. H. Beck, Washington, D C.; Med. Dept. National Univ., D. C., June 10,'97.
Samuel C. Bridgham, Pasadena: Med. Dept. Bowdoin Coll., Me., July 13,'82.
Lewis T. Brock, Gold Hill, Or.; Med. Dept. Univ Oregon, April 5,'97.
May H. W. Cardwell, Portland Or.; Med. Dept. Willamette Univ , Or. April 11,'85.
Delbert A. Clark, Long Beach; Med. Dept. State Univ Iowa, Mar. 5,'84.
Guy P Doyle, Bishop; Rush Med. Coll., Ill., May 23,'94.
Ellis W Hedges, San Francisco; Med. Dept. Univ. of Pennsylvania, April 3,'83.
Wm. E. Maxwell, Portland; Jefferson Med Coll , Pa., April 2,'85
James C. Minor, Los Angeles; Univ. Med. Coll., Kansas City, Mo., Mar 14,'91.
Wm. Moershel. Homestead, Ia ; Med. Dept. State Univ. Iowa, Mar. 7,'88.
Herbert C. Moffitt. Oakland; Med. Dept. Harvard Univ., Mass., June 27,'94.
Albert E. Osborne, Thermalito; Med. Dept. Univ., Pennsylvania, June 9,'97.
Henry S Pernot Corvallis, Or.; Bellevue Hosp. Med. Coll., N. Y., Mar. 27,'93.
Thomas K Smith, San Diego; Med Dept Univ Michigan, Mar. 27,'67.
Laban C Winsor, San Jose; Bellevue Hosp Med. Coll , N. Y., June 25,'85.
Geo. Preston Wintermute, San Francisco; Jefferson Med Coll., Pa., May 2,'93.

REFUSED.

M. H Hernandez, fraudulent diploma.
J. A. Charest, college not recognized.

CHAS. C. WADSWORTH, Secretary.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department of the U. S. Army (Division of the Pacific) from July 20, 1897, to August 20, 1897.

Captain Guy L. Edie, Assistant Surgeon, will accompany, as medical officer, Companies B and C, 1st Infantry, now at the Presidio of San Francisco, California, and two other companies of that regiment, to be designated by the Commanding Officer, to Redwood City, California. The Quartermaster at the Presidio of San Francisco will furnish seven four-mule escort wagons one hospital ambulance and one Dougherty wagon, with drivers for each, and four days' grain forage Par. 1, S. O. 82, Dept. of Cal., Aug. 9, 1897

So much of Paragraph 16, S. O. 162, A. G. O., July 16, 1897, as relates to the officers hereinafter named is amended to read as follows: Captain Frank R. Keefer, Assistant Surgeon, is relieved from duty at Washington Barracks, D. C., to take effect upon expiration of his present leave, and ordered to Fort Walla Walla, Washington, for duty.

Leave of absence for two months and ten days, to take effect upon being relieved from temporary duty at the Soldiers' Home, near Washington, D. C., is granted Captain Charles M. Gandy, Assistant Surgeon, who will, upon the expiration of leave of absence, report for duty at Fort Mason, California

Leave of absence for four months, to take effect upon the arrival of Captain Frank R Keefer, Assistant Surgeon, at Fort Walla Walla, Washington, is granted Captain John L. Phillips, Assistant Surgeon.

Leave of absence for one month and ten days, to take effect on or about August 20, 1897, is granted Lieutenant Colonel Alfred A. Woodhull, Deputy Surgeon General, Chief Surgeon, Hdqrs. Department of the Colorado

ITEMS.

Dr. C. G. Kuhlman has removed from 935 Market street to 423 Elli sstreet, San Francisco, California.